West Virginia Department of Environmental Protection
Division of Air Quality

Joe Manchin, III
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

Alcan Rolled Products – Ravenswood, LLC
Ravenswood
R30-03500043-2008

John A. Benedict
Director

Issued: August 5, 2008 • Effective: August 19, 2008

Permit Number: **R30-03500043-2008**
Permittee: **Alcan Rolled Products – Ravenswood, LLC**
Permittee Mailing Address: **P. O. Box 68, Ravenswood, WV 26164**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Ravenswood, Jackson County, West Virginia
Telephone Number:	(304) 273-7000
Type of Business Entity:	Corporation
Facility Description:	Secondary aluminum operation
SIC Codes:	3353
UTM Coordinates:	428.30 km Easting • 4,308.60 km Northing • Zone 17

Permit Writer: Carrie McCumbers

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.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

Table of Contents

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
		Casting Department 005			
005P104	005S101 or 005S102	Induction Furnace East	1975	1.2 x 10^7 lbs	Baghouse 1 005C101 or Baghouse 2 005C102
005P105	005S101 or 005S102	Induction Furnace West	1975	1.2 x 10^7 lbs	Baghouse 1 005C101 or Baghouse 2 005C102
005P106	005S103	Dross Cooler/Breaker	1991	17.5 tons/hr	Baghouse 3 005C103
005P107	005S105	Melting Furnace DC-1	1970	1.7 x 10^7 lbs	None
005P108	005S106	Melting Furnace DC-2	1986	1.7 x 10^7 lbs	None
005P109	005S107	Melting Furnace DC-3	1950s	1.0 x 10^7 lbs	None
005P111	005S109	Melting Furnace DC-5	1950s	1.0 x 10^7 lbs	None
005P112	005S110	Melting Furnace DC-6	1950s	1.0 x 10^7 lbs	None
005P113	005S111	Melting Furnace DC-7	1960s	1.39 x 10^7 lbs	None
005P114	005S112	Melting Furnace DC-8	1960s	1.39 x 10^7 lbs	None
005P115	005S113	Melting Furnace DC-9A	1978	1.5 x 10^7 lbs	None
005P116	005S114	Melting Furnace DC-9B	1978	1.5 x 10^7 lbs	None
005P117	005S115	Holding Furnace 1	1970	1.7 x 10^7 lbs	None
005P118	005S116	Holding Furnace 2	1986	1.7 x 10^7 lbs	None
005P119	005S117	Holding Furnace 3	1950s	1.0 x 10^7 lbs	None
005P121	005S126	Holding Furnace 5	1950s	1.0 x 10^7 lbs	Baghouse 4 005C105
005P122	005S120	Holding Furnace 6	1950s	1.0 x 10^7 lbs	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
005P123	005S126	Holding Furnace 7	1960s	1.39 x 10^7 lbs	Baghouse 4 005C105
005P124	005S126	Holding Furnace 8	1960s	1.39 x 10^7 lbs	Baghouse 4 005C105
005P125	005S126	Holding Furnace 9	1978	3.0 x 10^7 lbs	Baghouse 4 005C105
005P138	005S125	Paste Mixer	2005	1 ton	Baghouse 005C109
005P139	005S127	Melting Furnace DC-10A	2001	5.11 x 10^8 lbs	None
005P140	005S128	Melting Furnace DC-10B	2001	5.11 x 10^8 lbs	None
005P141	005S126	Holding Furnace 10	2001	5.11 x 10^8 lbs	Baghouse 4 005C105
005P142	005S129	Rotary Furnace	2001	6.13 x 10^7 lbs	Baghouse 5 005C108
		Hot Line 006			
006P104	006S102	Walking Beam Furnace	1970	6.1 x 10^7 scf/month	None
006P105	006S103, 006S104, 006S105, 006S106, 006S107, 006S108, 006S109, 006S110, 006S111, 006S112, 006S113, 006S114, 006S115, 006S116, 006S117	27 Heat Soaking Pits (337)	1958	5.63 x 10^5 lb/hr	None
006P107	None	168 Inch Hot Mill (351)	1958	2.4 x 10^5 lb/hr	None
006P109	006S118, 006S119, 006S120, 006S121	4 Reheat Furnaces	1958	2.0 x 10^6 lb/hr	None
006P110	None	110 Inch Hot Mill (355)	1958	2.4 x 10^5 lb/hr	None
006P113	None	5-Stand Hot Mill (361)	1958	2.4 x 10^5 lb/hr	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
006P119	006S126, 006S127	Ingot Pusher	1998	3.0×10^7 lb/hr	None
006P120	006S128	Preheat Furnace	2003	1.56×10^4 lb/hr	None
Cold Line Rolling 007					
007P101	007S101	72 Inch Single Stand Cold Mill (384)	1975	1.6×10^5 lb/hr	Demister 007C101
007P102	007S102	72 Inch Tandem Stand Cold Mill (382)	1971	2.6×10^4 lb/hr	Demister 007C102
007P103	007S104	130 Inch Single Stand Cold Mill (386)	1971	2.4×10^5 lb/hr	Cyclone 007C104
007P105	007S103	5-Stand Cold Mill (381)	1975	$8.0 \text{ X } 10^4$ lb/hr	Demister 007C103
007P107	007S107, 007S108, 007S109, 007S110, 007S111, 007S112, 007S113, 007S114, 007S115, 007S116, 007S117, 007S118, 007S119	Cold Roll Annealing Furnaces	1971	1.33×10^8 scf/month	None
Plate Department 008					
008P102	008S101, 008S102, 008S103, 008S104	Salem 12 Zone Heat Treat Furnace (373)	1960	1.14×10^7 scf/month	None
008P103	None	144 Inch Plate Mill (371)	1960	250 ft/min	None
008P104	None	120 Foot Aging Furnace (340)	1971	3.58×10^7 scf/month	None
008P105	None	60 Foot Aging Furnace	1971	5.10×10^6 scf/month	None
008P110	008S106, 008S107	Horizontal Heat Treat Furnace	1998	2.22×10^7 scf/month	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
008P112	008S108	Horizontal Heat Treat Furnace Addition	2003	2.22×10^6 scf/month	None
008P113	008S110	Horizontal Heat Treat Furnace Addition #2	2006	2.22×10^6 scf/month	None
008P111	008S109	Aging Furnace	2001	5.10×10^6 scf/month	None
008P114	008S111	Aging Furnace #2	2006	5.10×10^6 scf/month	None
Finishing Department 009					
009P103	009S101, 009S102, 009S103, 009S104, 009S105, 009S106, 009S107, 009S108, 009S109, 009S110	Coil Annealing Furnaces (413)	1971	1.42×10^7 scf/month	None
009P104	009S111, 009S112, 009S113, 009S114, 009S115	Coil Annealing Furnaces (521)	1971	9.64×10^7 scf/month	None
009P109	None	66 Inch Coil Processing Line (527)	1966	1.2×10^5 lb/hr	None
009P110	None	120 Inch Wide Level Line (575)	1972	1.6×10^5 lb/hr	None
009P111	None	Cut to Length Line (511)	1972	1.6×10^5 lb/hr	None
Miscellaneous Sources 010					
010P201	010S201	Dust Handling System (Consists of Truck Dump Receiving, Hopper A, Hopper B, Screw Conveyors SC-1, SC-2, SC-3, and SC-4, Bucket Elevator BE-1, Loading Bin , and Truck Loadout)	1995	20 tph	Baghouse R-2 010C201

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-0017	January 10, 1974
R13-0072	May 23, 1974
R13-0383	February 27, 1978
R13-2102	July 1, 1997
R13-2376C	December 19, 2005

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 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

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		
CES	Certified Emission Statement	**PM**	Particulate Matter
C.F.R. *or* CFR	Code of Federal Regulations	**PM_{10}**	Particulate Matter less than 10μm in diameter
CO	Carbon Monoxide		
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	**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		
HP	Horsepower	**SIP**	State Implementation Plan
lbs/hr *or* lb/hr	Pounds per Hour	**SO_2**	Sulfur Dioxide
LDAR	Leak Detection and Repair	**TAP**	Toxic Air Pollutant
m	Thousand	**TPY**	Tons per Year
MACT	Maximum Achievable Control Technology	**TRS**	Total Reduced Sulfur
		TSP	Total Suspended Particulate
mm	Million	**USEPA**	United States Environmental Protection Agency
mmBtu/hr	Million British Thermal Units per Hour		
$mmft^3$/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour	**UTM**	Universal Transverse Mercator
NA *or* N/A	Not Applicable	**VEE**	Visual Emissions Evaluation
NAAQS	National Ambient Air Quality Standards	**VOC**	Volatile Organic Compounds
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. 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; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. 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.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would 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.
[45CSR§30-5.1.f.2.]

2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably 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.
[45CSR§30-5.7.a.]

2.17.2. 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 45CSR§30-5.7.c. are met.
[45CSR§30-5.7.b.]

2.17.3. 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. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, 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, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

2.18.2. Those provisions specifically designated in the permit as “State-enforceable only” shall become “Federally-enforceable” requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. 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 modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required 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.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. 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.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof. **[45CSR§30-5.6.a.]**

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. 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 defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding. **[45CSR§30-5.3.e.3.B. and 45CSR38]**

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect. **[45CSR§30-5.1.e.]**

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege. **[45CSR§30-5.1.f.4]**

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person 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 or allow 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.
[40 C.F.R. §61.145(b) and 45CSR15]

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. **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 45CSR11.
[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** This stationary source, as defined in 40 C.F.R. § 68.3, is subject to Part 68. This stationary source shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. Part 68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

3.1.9. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in 3.1.10. *(005P104, 005P105, 005P106, 005P107, 005P108, 005P109, 005P111, 005P112, 005P113, 005P114, 005P115, 005P116, 005P139, 005P140, 005P117, 005P118, 005P119, 005P121, 005P122, 005P123, 005P124, 005P125, 005P141, 005P142, 005P138, 006P104, 006P105, 006P107, 006P109, 006P110, 006P113, 006P119, 006P120, 007P101, 007P102, 007P103, 007P105, 007P107, 008P102, 008P104, 008P105, 008P110, 008P112, 008P113, 008P111, 008P114, 009P103, 009P104, and 010P201)* **[45CSR13, R13-2102, B.3; 45CSR13, R13-2376, B.1 and B.2; 45CSR§7-3.1]**

3.1.10. The provision of 3.1.9 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. *(005P104, 005P105, 005P106, 005P107, 005P108, 005P109, 005P111, 005P112, 005P113, 005P114, 005P115, 005P116, 005P139, 005P140, 005P117, 005P118, 005P119, 005P121, 005P122, 005P123, 005P124, 005P125, 005P141, 005P142, 005P138, 006P104, 006P105, 006P107, 006P109, 006P110, 006P113, 006P119, 006P120, 007P101, 007P102, 007P103, 007P105, 007P107, 008P102, 008P104, 008P105, 008P110, 008P112, 008P113, 008P111, 008P114, 009P103, 009P104, and 010P201)* **[45CSR13, R13-2102, B.3; 45CSR13, R13-2376, B.1 and B.2; 45CSR§7-3.2]**

3.1.11. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. **[45CSR13, R13-2102, B.3; 45CSR13, R13-2376, B.1 and B.2; 45CSR§7-5.1]**

3.1.12. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. **[45CSR13, R13-2102, B.3; 45CSR13, R13-2376, B.1 and B.2; 45CSR§7-5.2]**

3.1.13. No person shall circumvent the provisions of 45CSR7 by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration. **[45CSR13, R13-2102, B.3; 45CSR13, R13-2376, B.1 and B.2; 45CSR§7-4.3]**

3.1.14. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures. **[45CSR13, R13-2102, B.3; 45CSR13, R13-2376, B.1 and B.2; 45CSR§7-4.12]**

3.1.15. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. **[45CSR13, R13-2102, B.3; 45CSR13, R13-2376, B.1 and B.2; 45CSR§7-9.1]**

3.1.16. The permittee shall burn natural gas meeting the Federal Energy Regulatory Commission (FERC) requirements exclusively for all furnaces. **[45CSR§30-12.7]**

3.2. Monitoring Requirements

3.2.1. Visual emission checks of each emission point subject to an opacity limit under 3.1.9 and 3.1.10 shall be conducted once per week during periods of normal facility operation using 40 C.F.R. 60, Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with the methodology set forth in 45CSR7A – "Compliance Test Procedures for 45CSR7." If no visible emissions are observed after two weeks, visible emission checks shall be conducted monthly. If any visible emissions are observed during the monthly emission checks, visible emission checks shall return to being performed weekly. If no visible emissions are observed after four months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained on site and shall include all data required by 40 C.F.R. 60, Appendix A, Method 22 or 45CSR7A, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken. **[45CSR§30-5.1.c]**

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, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are 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.

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.

[WV Code § 22-5-4(a)(15) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** 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.

[45CSR§30-5.1.c.2.A.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

3.4.3. **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§30-5.1.c. State-Enforceable only.]

3.4.4. **Fugitives.** The permittee shall monitor all fugitive particulate matter emission sources as required by 3.1.11 to ensure that a system to minimize fugitive emissions has been installed or implemented. Records shall be maintained on site stating the types of fugitive particulate matter capture and/or suppression systems used, the times these systems were inoperable, and the corrective actions taken to repair these systems. **[45CSR§30-5.1.c]**

3.4.5. **Fugitives.** The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures as required by 3.1.12 applied at the facility. These records shall be maintained on site. **[45CSR§30-5.1.c]**

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.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. 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, mailed first class or by private carrier 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:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.
[45CSR§30-5.1.c.3.A.]

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

3.6.1. None.

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

a. 40 C.F.R. 60, Subpart Dc – "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units." The facility does not operate any boilers. All steam is purchased from the adjacent facility; therefore, 40 C.F.R. 60, Subpart Dc does not apply.

b. 40 C.F.R. 60, Subpart Kb – "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. 40 C.F.R. 60, Subpart Kb, as amended on October 15, 2003, applies to each storage vessel with a capacity greater than or equal to 75 m^3 that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. All tanks at this facility which store volatile organic liquid were either installed before July 23, 1984 or have a storage capacity of less than 75 m^3.

c. 40 C.F.R. 63, Subpart LL – "National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants." The facility is adjacent to a primary aluminum smelter and previously the entire facility was an integrated facility. However, another corporation now owns all primary aluminum operations and ARP only has secondary aluminum operations.

d. 40 C.F.R. 63, Subpart DDDDD – "National Emission Standards for Hazardous Air Pollutants: Industrial/Commercial/Institutional Boilers and Process Heaters." On July 30, 2007, the United States Court of Appeals for the District of Columbia Circuit vacated and remanded the Boiler MACT. As a result of the court's decision, a MACT for this source category will have to be implemented via a 112(j) case-by-case MACT determination or a subsequent 40 C.F.R. 63 proposal. Per DAQ's "Interim Guidance for Existing Sources – Boiler and Process Heater MACT Vacature," dated September 7, 2007, the DAQ does not intend to implement the provisions of the Boiler and Process Heater MACT for existing sources at this time. US EPA will be issuing guidance regarding the 112(j) case-by-case MACT determination of equivalent emission limitation in the future. Due to these facts, no requirements for 40 C.F.R. 63, Subpart DDDDD have been included.

e. 45CSR10 – "To Prevent and Control Air Pollution from the Emission of Sulfur Oxides." 45CSR§10-4.1.e exempts manufacturing process source operations from the 45CSR§10-4.1 sulfur dioxide concentration limit of 2,000 ppm_v if the potential to emit from the manufacturing process source operation is less than 500 pounds per year of sulfur oxides. All manufacturing process source operations at ARP have the potential to emit less than 500 lbs/year of sulfur oxides.

4.0 Source-Specific Requirements [Casting Department]

4.1. Limitations and Standards

4.1.1. 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 of 45CSR7 as specified below.

Emission Unit	Emission Unit ID	Maximum Allowable 45CSR§7-4.1 Particulate Matter Emission Limit (lb/hr)
Induction Furnaces East and West	005P104 / 005P105	11.2
Dross Cooler/Breaker	005P106	25
Melting Furnace DC-1	005P107	20.5
Melting Furnace DC-2	005P108	16.83
Melting Furnace DC-3	005P109	16.75
Melting Furnace DC-5	005P111	16.75
Melting Furnace DC-6	005P112	16.83
Melting Furnace DC-7	005P113	20.5
Melting Furnace DC-8	005P114	20.5
Holding Furnace 1	005P117	20.5
Holding Furnace 2	005P118	16.83
Holding Furnace 3	005P119	16.75
Holding Furnace 5	005P121	16.75
Holding Furnace 6	005P122	16.83
Holding Furnace 7	005P123	20.5
Holding Furnace 8	005P124	20.5
Paste Mixer	005P138	11.2

[45CSR§7-4.1 and Table 45-7A]

4.1.2. 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 of 45CSR7 as specified below.

Emission Unit	Emission Unit ID	Pollutant	Limit (mg/dscm)
Induction Furnaces East and West	005P104 005P105	HCl	420
Melting Furnace DC-1 Melting Furnace DC-2 Melting Furnace DC-3 Melting Furnace DC-5 Melting Furnace DC-6 Melting Furnace DC-7 Melting Furnace DC-8 Holding Furnace 1 Holding Furnace 2 Holding Furnace 3 Holding Furnace 5 Holding Furnace 6 Holding Furnace 7 Holding Furnace 8	005P107 005P108 005P109 005P111 005P112 005P113 005P114 005P117 005P118 005P119 005P121 005P122 005P123 005P124	HCl	420
Melting Furnace DC-9A Melting Furnace DC-9B Melting Furnace DC-10A Melting Furnace DC-10B Holding Furnace 9 Holding Furnace 10	005P115 005P116 005P139 005P140 005P125 005P141	HCl	210
Rotary Furnace	005P142	HCl	210

[45CSR13, R13-2376, B.1 and B.2; 45CSR§7-4.2 and Table 45-7B]

4.1.3. The following table provides a list of emission sources authorized to operate by R13-2376 at the subject facility. In accordance with the information filed in Permit Application R13-2376, and any amendments or revisions thereto, the sources shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants. In addition, the following sources shall not exceed the specified Maximum Design Heat Input (MDHI), shall utilize the specified control device, and shall combust only the specified fuel:

Source ID	Source Description	Stack ID	MDHI (MMBtu/hr)	Fuel Combusted	Control Device (C/D)	C/D ID
005P139	DC Melting Furnace DC-10A	005S127	70.0	Natural Gas	None	N/A
005P140	DC Melting Furnace DC-10B	005S128	70.0	Natural Gas	None	N/A
005P141	DC Holding Furnace 10	005S126	14.0	Natural Gas	Baghouse #4	005C105
005P142	Rotary Furnace	005S129	12.0	Natural Gas	Baghouse #5	005C108

[45CSR13, R13-2376, A.1]

4.1.4. Maximum hourly and annual air emission rates of total suspended particulate (TSP), particulate matter less than 10 microns (PM_{10}), carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxide (SO_2), and volatile organic compounds (VOCs) for each of the sources listed under 4.1.3 shall be those as set forth in the table below. The annual emission limits are on a rolling yearly total.

Source ID	Stack ID	Description	TSP	PM_{10}	CO	NO_x	SO_2	VOCs	HCl
Hourly Emission Limits (pounds/hr)									
005P139	005S127	DC-10A	3.12	1.53	4.90	5.60	0.04	0.38	35.43[(1)]
005P140	005S128	DC-10B	3.12	1.53	4.90	5.60	0.04	0.38	
005P141	005S126	Holding Furnace 10	0.19	0.19	1.12	0.70	0.01	0.08	
005P142	005S129	Rotary Furnace	1.27	1.27	0.99	0.88	0.01	0.01	
Annual Emission Limits (tpy)[(2)]									
005P139	005S127	DC-10A	9.53	4.67	13.19	15.17	0.12	1.02	108.33[(1)]
005P140	005S128	DC-10B	9.53	4.67	13.19	15.17	0.12	1.02	
005P141	005S126	Holding Furnace 10	0.57	0.57	3.14	1.96	0.02	0.21	
005P142	005S129	Rotary Furnace	3.71	3.71	4.33	2.52	0.03	0.28	

[(1)]Based on SAPU limit of 0.40 lb HCl/ton Al charged pursuant to 40 C.F.R. 63, Subpart RRR.
[(2)]Annual limits reflect 12-month Rolling Yearly Totals.

Compliance with the hourly TSP emission limits for Melting Furnace DC-10A (005P139), Melting Furnace DC-10B (005P140), Holding Furnace 10 (005P141), and Rotary Furnace (005P142) shall demonstrate compliance with the less stringent hourly 45CSR§7-4.1 particulate matter emission limits. **[45CSR13, R13-2376, A.2, B.1 and B.2; 45CSR§7-4.1 and Table 45-7A]**

4.1.5. In accordance with the information filed in Permit Application R13-2376, and any amendments or revisions thereto, Melting Furnaces DC-10A and DC-10B (005P139 and 005P140) shall be equipped with regenerative low-NO_x burners. **[45CSR13, R13-2376, A.3]**

4.1.6. 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 (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 C.F.R. 51, Appendix M. **[45CSR13, R13-2376, A.4]**

4.1.7. In accordance with the information filed in Permit Application R13-2376, and any amendments or revisions thereto, a lime-injected baghouse (005C105) serving Holding Furnace 10 (005P141) shall be installed, maintained, and operated so as to achieve a minimum 99.00% particulate matter (PM) control efficiency and a 95.00% hydrochloric acid (HCl) control efficiency. The permittee shall operate and monitor said baghouse according to all applicable terms and conditions as set forth in 40 C.F.R. 63, Subpart RRR. **[45CSR13, R13-2376, A.5]**

4.1.8. In accordance with the information filed in Permit Application R13-2376, and any amendments or revisions thereto, a lime-injected baghouse (005C108) serving the Rotary Furnace (005P142) shall be installed, maintained, and operated so as to achieve a minimum 99.00% particulate matter (PM) control efficiency and a 95.00 % hydrochloric acid (HCl) control efficiency. The permittee shall operate and monitor said baghouse according to all applicable terms and conditions as set forth in 40 C.F.R. 63, Subpart RRR. **[45CSR13, R13-2376, A.6]**

4.1.9. 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 Limit (ft^3)
005P139	Melting Furnace DC-10A	743,500,000(1)
005P140	Melting Furnace DC-10B	
005P141	Holding Furnace 10	76,862,746
005P142	Rotary Furnace	67,331,764

(1)Aggregate total of both melting furnaces.

[45CSR13, R13-2376, A.7]

4.1.10. The average hourly throughput of aluminum charge through Direct Chill Complex Number 10 (Melting Furnaces DC-10A and DC-10B, and Holding Furnace 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. **[45CSR13, R13-2376, A.8]**

4.1.11. 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. **[45CSR13, R13-2376, A.9]**

4.1.12. The average emission rate of TSP and PM_{10} 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	Melting Furnace DC-10A	005S127	0.1500	0.0735
005P140	Melting Furnace DC-10B	005S128	0.1500	0.0735
005P141	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.

[45CSR13, R13-2376, A.10]

4.1.13. The emission rate of NO_x from the specified equipment, in pounds of pollutant per million British thermal units of heat input (lb/MMBtu), shall not exceed the following:

Source ID	Source Description	Stack ID	NO_x Limit (lb/MMBtu)
005P139	Melting Furnace DC-10A	005S127	0.08
005P140	Melting Furnace DC-10B	005S128	0.08
005P141	Holding Furnace 10	005S126	0.05
005P142	Rotary Furnace	005S129	0.075

[45CSR13, R13-2376, A.11]

4.1.14. 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	Melting Furnace DC-10A	005S127	0.72
005P140	Melting Furnace DC-10B	005S128	0.72
005P141	Holding Furnace 10	005S126	0.095
005P142	Rotary Furnace	005S129	0.45

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

[45CSR13, R13-2376, A.13]

4.1.15. In accordance with the information filed in Permit Application R13-0383, and any amendments or revisions thereto, Melting Furnaces DC-9A and DC-9B and Holding Furnace 9 shall not exceed the following emission limits in pounds per hour:

Source ID	Source Description	PM	HCl	SO_2	NO_x	VOC
005P115	Melting Furnace DC-9A	3.2	6.8	0.01	2.25	0.05
005P116	Melting Furnace DC-9B	3.2	6.8	0.01	2.25	0.05
005P125	Holding Furnace 9	0.9	2.3	0.002	0.53	0.01

Compliance with the hourly PM emission limits for Melting Furnace DC-9A (005P115), Melting Furnace DC-9B (005P116), and Holding Furnace 9 (005P125) shall demonstrate compliance with the less stringent hourly 45CSR§7-4.1 particulate matter emission limits. **[45CSR13, R13-0383; 45CSR§7-4.1 and Table 45-7A]**

4.1.16. *Rotary dross cooler.* 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 emissions in excess of 0.09 g of PM per dscm (0.04 gr per dscf). *(Dross Cooler/Breaker {005P106})* **[45CSR34; 40 C.F.R. §§63.1505(h) and (h)(1)]**

4.1.17. *Group 1 furnace.* The owner or operator of a group 1 furnace must use the following limits to determine the emission standards for a secondary aluminum processing unit (SAPU):

a. 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;

b. 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.

c. 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.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding

Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142}) **[45CSR13, R13-2376, A.12, B.1, and B.5; 45CSR34; 40 C.F.R. §§63.1505(i)(1), (i)(3), and (i)(4)]**

4.1.18. *Secondary aluminum processing unit.* The owner or operator must comply with the emission limits calculated using the equations for PM and HCl in paragraphs 4.1.18.a and 4.1.18.b 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 4.1.18.c for each secondary aluminum processing unit at a secondary aluminum production facility that is a major or area source.

a. 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:

$$L_{cPM} = \frac{\sum_{i=1}^{n} \left(L_{tiPM} \times T_{ti} \right)}{\sum_{i=1}^{n} \left(T_{ti} \right)}$$

Where,

L_{tiPM} = The PM emission limit for individual emission unit i in 4.1.17.a of this section for a group 1 furnace.

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

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

b. 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:

$$L_{cHCl} = \frac{\sum_{i=1}^{n} \left(L_{tiHCl} \times T_{ti} \right)}{\sum_{i=1}^{n} \left(T_{ti} \right)}$$

Where,

L_{tiHCl} = The HCl emission limit for individual emission unit i in 4.1.17.c for a group 1 furnace; and

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

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

$$L_{cD/F} = \frac{\sum_{i=1}^{n} L_{tiD/F} \times T_{ti}}{\sum_{i=1}^{n} T_{ti}}$$

Where,

$L_{tiD/F}$ = The D/F emission limit for individual emission unit i in 4.1.17.b for a group 1 furnace; and

L_cD/F = The D/F emission limit for the secondary aluminum processing unit.

d. 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 4.1.18.a through 4.1.18.c by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of 4.1.17.

(SAPU consists of: Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, and Holding Furnace 10 {005P141}) **[45CSR13, R13-2376, A.12, B.1, and B.5; 45CSR34; 40 C.F.R. §§63.1505(k)(1), (k)(2), (k)(3), and (k)(4)]**

4.1.19. *Labeling.* The owner or operator must provide and maintain easily visible labels posted at each group 1 furnace and group 2 furnace that identifies the applicable emission limits and means of compliance, including:

a. The type of affected source or emission unit (e.g., group 1 furnace or group 2 furnace).

b. 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.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, Induction Furnace East {005P104}, Induction Furnace West {005P105}, Melting Furnace DC-3 {005P109}, Melting Furnace DC-5 {005P111}, and Melting Furnace DC-6 {005P112}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §§63.1506(b)(1) and (b)(2)]**

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

a. 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 40 C.F.R. §63.1502);

b. 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

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

(Holding Furnace 5 {005P121}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, and Dross Cooler/Breaker {005P106}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1506(c)]**

4.1.21. *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:

a. Except as provided in 4.1.21.c, 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

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

c. The owner or operator may choose 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:

(i) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units with a SAPU; and

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

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1506(d)]**

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

a. If a bag leak detection system is used to meet the monitoring requirements in 4.2.5,

(i) 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.

(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.

(Dross Cooler/Breaker {005P106}) **[45CSR34; 40 C.F.R. §§63.1506(j) and (j)(1)]**

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:

a. If a bag leak detection system is used to meet the monitoring requirements in 4.2.5, the owner or operator must:

(i) Initiate corrective action within 1 hour of a bag leak detection system alarm.

(ii) Complete the corrective action procedures in accordance with the OM&M plan.

(iii) 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.

b. 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).

c. 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.

d. 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.

(Holding Furnace 5 {005P121}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §§63.1506(m)(1), (m)(3), (m)(4), and (m)(5)]**

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:

a. 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.

b. 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.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, and Holding Furnace 6 {005P122}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §§63.1506(n)(1) and (n)(2)]**

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

a. Operate each furnace using only clean charge as the feedstock.

b. Operate each furnace using no reactive flux.

(Induction Furnace East {005P104}, Induction Furnace West (005P105}, Melting Furnace DC-3 {005P109}, Melting Furnace DC-5 {005P111}, and Melting Furnace DC-6 {005P112}) **[45CSR34; 40 C.F.R. §63.1506(o)]**

4.1.26. *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(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. *(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, Induction Furnace East {005P104}, Induction Furnace West {005P105}, Melting Furnace DC-3 {005P109}, Melting Furnace DC-5 {005P111}, Melting Furnace DC-6 {005P112}, and Dross Cooler/Breaker {005P106}))* **[45CSR13, R13-2376, B.1; 45CSR34; 40 C.F.R. §63.1506(p)]**

4.2. Monitoring Requirements

4.2.1. *Operation, maintenance, and monitoring (OM&M) plan.* The owner or operator must prepare and implement for each new or existing affected source and emission unit, a written operation, maintenance, and monitoring (OM&M) plan. The plan must be accompanied by a written certification by the owner or operator that the OM&M plan satisfies all requirements of this section and is otherwise consistent with the requirements of 40 C.F.R. 63, Subpart RRR. The owner or operator must comply with all of the provisions of the OM&M plan as submitted to the permitting authority, unless and until the plan is revised in accordance with the following procedures. If the permitting authority determines at any time after receipt of the OM&M plan that any

revisions of the plan are necessary, to satisfy the requirements of this section or 40 C.F.R. 63, Subpart RRR, the owner or operator must promptly make all necessary revisions and resubmit the revised plan. If the owner or operator determines that any other revisions of the OM&M plan are necessary such revisions will not become effective until the owner or operator submits a description of the changes and a revised plan incorporating them to the permitting authority. Each plan must contain the following information:

a. 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.

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

c. 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 4.1.16, 4.1.17, and 4.1.18.

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

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

(ii) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in 40 C.F.R. 63, Subpart A.

d. Procedures for monitoring process and control device parameters, including procedures for annual inspections of afterburners, and if applicable, the procedures to be used for determining charge/feed (or throughput) weight if a measurement device is not used.

e. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 4.2.1.a, including:

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

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

f. 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.

g. 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 4.2.9 for each group 1 furnace not equipped with an add-on air pollution control device.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9

{005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, Induction Furnace East {005P104}, Induction Furnace West {005P105}, Melting Furnace DC-3 {005P109}, Melting Furnace DC-5 {005P111}, Melting Furnace DC-6 {005P112}, and Dross Cooler/Breaker {005P106}) **[45CSR13, R13-2376, B.1; 45CSR34; 40 C.F.R. §63.1510(b)]**

4.2.2. *Labeling.* The owner or operator must inspect the labels for each group 1 furnace and group 2 furnace at least once per calendar month to confirm that posted labels as required by the operation standard in 4.1.19 are intact and legible. *(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, Induction Furnace East {005P104}, Induction Furnace West {005P105}, Melting Furnace DC-3 {005P109}, Melting Furnace DC-5 {005P111}, and Melting Furnace DC-6 {005P112})* **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(c)]**

4.2.3. *Capture/collection system.* The owner or operator must:

a. 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

b. 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 4.1.20 and record the results of each inspection.

(Holding Furnace 5 {005P121}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, and Dross Cooler/Breaker {005P106}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(d)]**

4.2.4. *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.

a. 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 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.

b. 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.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(e)]**

4.2.5. *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 40 C.F.R. 63, Subpart RRR must install, calibrate, maintain, and continuously operate a bag leak detection system as required in 4.2.5.a. through 4.2.5.j.

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

b. 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.

c. 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.

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

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

f 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.

g. 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.

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

i. 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.

j. 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.

(Baghouse 3 {005C103}, Baghouse 4 {005C105}, and Baghouse 5 {005C108}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(f)(1)]**

4.2.6. *Fabric filter inlet temperature.* These requirements apply to the owner or operator of a group 1 furnace using a lime-injected fabric filter to comply with the requirements of 40 C.F.R. 63, Subpart RRR.

a. 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 40 C.F.R. 63, Subpart A.

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

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

(ii) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 4.3.13.

(iii) 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.

(Baghouse 4 {005C105} and Baghouse 5 {005C108}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(h)]**

4.2.7. *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 40 C.F.R. 63, Subpart RRR.

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

(i) 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

(ii) 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 be free-flowing, the owner or operator must promptly initiate and complete corrective action, or

(iii) 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.

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

c. 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.

(Baghouse 4 {005C105} and Baghouse 5 {005C108}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(i)]**

4.2.8. *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). The owner or operator must:

a. Install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to each affected source or emission unit.

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

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

(iii) 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.

b. 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 4.3.14.

c. 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:

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

(ii) Solid reactive flux.

d. 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 4.3.14.

e. The owner or operator of a group 1 furnace 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. An alternative monitoring method 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 on a continuous basis.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(j)]**

4.2.9. *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.

a. The owner or operator must develop, in consultation with the responsible permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be submitted to the permitting authority as part of the OM&M plan. The site-specific monitoring plan must contain sufficient procedures to ensure continuing compliance with all applicable emission limits and must demonstrate, based on documented test results, the relationship between emissions of PM, HCl, and 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 anticipate rate. If the permitting authority determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of this section or this subpart, the owner or operator must promptly make all necessary revisions and resubmit the revised plan to the permitting authority.

(i) The owner or operator of an existing affected source must submit the site-specific monitoring plan to the applicable permitting authority for review at least 6 months prior to the compliance date.

(ii) The permitting authority will review and approve or disapprove a proposed plan, or request changes to a plan, based on whether the plan contains sufficient provisions to ensure continuing compliance with applicable emission limits and demonstrates, based on documented test results, the relationship between emissions of PM, HCl, and D/F and the proposed monitoring parameters for each pollutant. Test data must establish the highest level of PM, HCl, and D/F that will be emitted from the furnace. Subject to permitting agency approval of the OM&M plan, this may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate.

b. 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.

c. Each site-specific monitoring plan must include provisions for unit labeling as required in 4.2.2, feed/charge weight measurement (or production weight measurement) as required in 4.2.4 and flux weight measurement as required in 4.2.8.

d. 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 4.2.10.

e. 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 4.2.11.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, and Holding Furnace 6 {005P122}) **[45CSR13, R13-2376, B.1; 45CSR34; 40 C.F.R. §§63.1510(o)(1), (o)(2), (o)(3), (o)(7), and (o)(8)]**

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

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

b. A scrap inspector training program.

c. An established correlation between visual inspection and physical measurement of oil and coatings content of scrap samples.

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

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

f. Recordkeeping requirements to document conformance with plan requirements.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, and Holding Furnace 6 {005P122} **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(p)]**

4.2.11. *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:

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

b. 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.

c. 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.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, and Holding Furnace 6 {005P122} **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(q)]**

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

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

b. Submit a certification of compliance with the applicable operational standard for charge materials in 4.1.25 for each 6-month reporting period. Each certification must contain the information in 40 C.F.R. 4.5.2.b.

(Induction Furnace East {005P104}, Induction Furnace West {005P105}, Melting Furnace DC-3 {005P109}, Melting Furnace DC-5 {005P111}, and Melting Furnace DC-6 {005P112}) **[45CSR34; 40 C.F.R. §63.1510(r)]**

4.2.13. *Site-specific requirements for secondary aluminum processing units.*

a. An owner or operator of a secondary aluminum processing unit at a facility must include, within the OM&M plan prepared in accordance with 4.2.1 the following information:

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

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

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

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

(v) 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 4.2.14.

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

(i) Any averaging among emissions of differing pollutants;

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

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

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

c. 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 containing the information required by 4.2.13.a and obtain approval of the applicable permitting authority prior to implementing any revisions.

(SAPU consists of: Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, and Holding Furnace 10 {005P141}) **[45CSR13, R13-2376, B.1; 45CSR34; 40 C.F.R. §63.1510(s)]**

4.2.14. *Secondary aluminum processing unit.* Except as provided in 4.2.15, 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:

a. 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 4.2.4. 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.

b. 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.

c. 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.

d. Compute the 24-hour daily emission rate using the following equation:

$$E_{day} = \frac{\sum_{i=1}^{n} T_i \times ER_i}{\sum_{i=1}^{n} T_i}$$

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 or Mg);

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

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

e. 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.

(SAPU consists of: Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding

Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, and Holding Furnace 10 {005P141}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(t)]**

4.2.15. *Secondary aluminum processing unit compliance by individual emission unit demonstration.* As an alternative to the procedures of 4.2.14, 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.

(SAPU consists of: Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, and Holding Furnace 10 {005P141}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1510(u)]**

4.2.16. Induction Furnace East (005P104), Induction Furnace West (005P105), Melting Furnace DC-1 (005P107), Melting Furnace DC-2 (005P108), Melting Furnace DC-3 (005P109), Melting Furnace DC-5 (005P111), Melting Furnace DC-6 (005P112), Melting Furnace DC-7 (005P113), Melting Furnace DC-8 (005P114), Holding Furnace 1 (005P117), Holding Furnace 2 (005P118), Holding Furnace 3 (005P119), Holding Furnace 5 (005P121), Holding Furnace 6 (005P122), Holding Furnace 7 (005P123), Holding Furnace 8 (005P124), Melting Furnace DC-10A (005P139), Melting Furnace DC-10B (005P140), Holding Furnace 10 (005P141), Rotary Furnace (005P142), Melting Furnace DC-9A (005P115), Melting Furnace DC-9B (005P116), and Holding Furnace 9 (005P125) shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Condition 3.1.16 of this permit. **[45CSR§§30-5.1.c and 12.7]**

4.3. Testing Requirements

4.3.1. *Site-specific tests plan.* Prior to conducting any performance test required by 40 C.F.R. 63, Subpart RRR, the owner or operator must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in 40 C.F.R. §63.7(c). **[45CSR13, R13-2376, A.14, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1511(a)]**

4.3.2. *Test methods.* The owner or operator must use the following methods in appendix A to 40 C.F.R. 60 to determine compliance with the applicable emission limits or standards:

a. Method 1 for sample and velocity traverses.

b. Method 2 for velocity and volumetric flow rate.

c. Method 3 for gas analysis.

d. Method 4 for moisture content of the stack gas.

e. Method 5 for the concentration of PM.

f. Method 9 for visible emission observations.

g. Method 23 for the concentration of D/F.

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

i. 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.

[45CSR13, R13-2376, A.14, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1511(c)]

4.3.3. *Alternative methods.* The owner or operator may use an alternative test method, subject to approval by the Administrator. **[45CSR13, R13-2376, A.14 and B.1; 45CSR34; 40 C.F.R. §63.1511(d)]**

4.3.4. *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. **[45CSR13, R13-2376, A.14 and B.1; 45CSR34; 40 C.F.R. §63.1511(e)]**

4.3.5. *Testing of representative emission units.* With the prior approval of the permitting authority, 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 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:

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

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

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

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

e. 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.

[45CSR13, R13-2376, A.14 and B.1; 45CSR34; 40 C.F.R. §63.1511(f)]

4.3.6. *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 Section 4.2 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 40 C.F.R. §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 the 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:

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

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

c. 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.

d. All process and control equipment operating parameters required to be monitored were monitored as required in 40 C.F.R. 63, Subpart RRR and documented in the test report.

[45CSR13, R13-2376, A.14, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1511(g)]

4.3.7. *Testing of commonly-ducted units within a secondary aluminum processing unit.* When group 1 furnaces 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 4.1.18. **[45CSR13, R13-2376, A.14 and B.1; 45CSR34; 40 C.F.R. §63.1511(h)]**

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

a. 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).

b. 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.

(Holding Furnace 5 {005P121}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §§63.1512(d)(1) and (d)(3)]**

4.3.9. *Group 1 furnace (including melting holding furnaces) without add-on air pollution control devices.* In the site-specific monitoring plan required by 4.2.9, 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.

a. 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.

b. 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.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, and Holding Furnace 6 {005P122} **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §§63.1512(e), (e)(1), and (e)(3)]**

4.3.10. *Rotary dross cooler*. The owner or operator must conduct a performance test to measure PM emissions at the outlet of the control device. *(Dross Cooler/Breaker {005P106})* **[45CSR34; 40 C.F.R. §63.1512(i)]**

4.3.11. *Secondary aluminum processing unit.* The owner or operator must conduct performance tests as described in 4.3.11.a 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 4.2.14. A performance test is required for:

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

(i) Emissions of HCl (for the emission limit); or

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

(SAPU consists of: Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, and Holding Furnace 10 {005P141}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §§63.1512(j) and (j)(2)]**

4.3.12. *Feed/charge weight measurement.* During the emission tests(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 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. *(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-*

10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1512(k)]**

4.3.13. *Inlet gas temperature.* The owner or operator a of 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.

a. 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;

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

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

(Baghouse 4 {005C105} and Baghouse 5 {005C108}) **[45CSR34; 40 C.F.R. §63.1512(n)]**

4.3.14. *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.

a. 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;

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

c. 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 the following equation:

$$W_t = F_1W_1 + F_2W_2$$

Where,

W_t = Total chlorine usage, by weight;

F_1 = Fraction of gaseous or liquid flux that is chlorine;

W_1 = Weight of reactive flux gas injected;

F_2 = Fraction of solid reactive chloride flux that is chlorine (e.g., F = 0.75 for magnesium chloride); and

W_2 = Weight of solid reactive flux;

d. 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

e. 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.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1512(o)]**

4.3.15. *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.

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

b. 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.

(Baghouse 4 {005C105} and Baghouse 5 {005C108}) **[45CSR13, R13-2376, B.1, and B.5; 45CSR34; 40 C.F.R. §63.1512(p)]**

4.3.16. *PM, HCl, and D/F emission limits.*

a. Use the following equation to determine compliance with an emission limit for PM or HCl:

$$E = \frac{C \times Q \times K_1}{P}$$

Where:

E = Emission rate of PM or HCl, kg/Mg (lb/ton) of feed;

C = Concentration of PM or HCl (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).

b. Use the following equation to determine compliance with an emission limit for D/F:

$$E = \frac{C \times Q}{P}$$

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).

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142}) **[45CSR13, R13-2376, B.1; 45CSR34; 40 C.F.R. §63.1513(b)]**

4.3.17. *HCl percent reduction standard.* Use the following equation to determine compliance with an HCl percent reduction standard:

$$\%R = \frac{L_i - L_o}{L_i} \times 100$$

Where,

% R = Percent reduction of the control device;

L_i = Inlet loading of pollutant, kg/Mg (lb/ton); and

L_o = Outlet loading of pollutant, kg/Mg (lb/ton).

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142}) **[45CSR13, R13-2376, B.1; 45CSR34; 40 C.F.R. §63.1513(c)]**

4.3.18. *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), incorporated by reference in 40 C.F.R. §63.1502, available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia, NTIS no. PB 90-145756. *(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, and Rotary Furnace {005P142})* **[45CSR13, R13-2376, B.1; 45CSR34; 40 C.F.R. §63.1513(d)]**

4.3.19. *Secondary aluminum processing unit.* Use the procedures in 4.3.19.a, 4.3.19.b, and 4.3.19.c or the procedure in 4.3.19.d to determine compliance with emission limits for a secondary aluminum processing unit.

a. Use the following equation to compute the mass-weighted PM emissions for a secondary aluminum processing unit. Compliance is achieve if the mass-weighted emissions for the secondary aluminum processing unit (E_{cPM}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cPM}) calculated using the equation 4.1.18.a.

$$E_{cPM} = \frac{\sum_{i=1}^{n} (E_{tiPM} \times T_{ti})}{\sum_{i=1}^{n} T_{ti}}$$

Where,

E_{cPM} = The mass-weighted PM emissions for the secondary aluminum processing unit;

E_{tiPM} = Measured PM emissions for individual emission unit i;

T_{ti} = The average feed rate for individual emission unit i during the operating cycle or performance test period; and

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

b. Use the following equation to compute the aluminum mass-weighted HCl emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (E_{cHCl}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cHCl}) calculated using the equation in 4.1.18.b.

$$E_{cHCl} = \frac{\sum_{i=1}^{n} (E_{tiHCl} \times T_{ti})}{\sum_{i=1}^{n} T_{ti}}$$

Where,

E_{cHCl} = The mass-weighted HCl emissions for the secondary aluminum processing unit; and

E_{tiHCl} = Measured HCl emissions for individual emission unit i.

c. Use the following equation to compute the aluminum mass-weighted D/F emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit is less than or equal to the emission limit for the secondary aluminum processing unit ($L_{cD/F}$) calculated using the equation 4.1.18.c.

$$E_{cD/F} = \frac{\sum_{i=1}^{n} E_{tiD/F} \times T_{ti}}{\sum_{i=1}^{n} T_{ti}}$$

Where,

$E_{cD/F}$ = The mass-weighted D/F emissions for the secondary aluminum processing unit; and

$E_{tiD/F}$ = Measured D/F emissions for individual emission unit i.

d. As an alternative to using the equations in 4.3.19.a, 4.3.19.b, and 4.3.19.c, 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 4.1.17.

(SAPU consists of: Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, and Holding Furnace 10 {005P141}) **[45CSR13, R13-2376, B.1; 45CSR34; 40 C.F.R. §63.1513(e)]**

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

In addition to performance tests as required under 40 C.F.R. §63.1511, within sixty (60) days of initial startup, but no later than 180 days after installation, and at such times thereafter as may be required by the USEPA Administrator or the Director of the Division of Air Quality, the permittee shall conduct, or have conducted, performance tests which will demonstrate compliance with the following: TSP and PM_{10} emission limits as set forth under Condition 4.1.12; NO_x emission limits as set forth under Conditions 4.1.13, 5.1.7, and 7.1.5; and,

pursuant to 45CSR§7-4.2, compliance with the maximum stack gas concentration limit of 210 milligrams per dry cubic meter at standard conditions as set forth in Table 45-7B and provided in Condition 4.1.2. The tests shall be conducted in accordance with Conditions 4.3.21 and 4.3.22.

[45CSR13, R13-2376, A.14]

4.3.21. Tests that are required by the Director to determine compliance with the emission limitations set forth in Conditions 4.1.12, 4.1.13, 4.1.14, 5.1.7, and 7.1.5 of this permit shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at the maximum permitted operating conditions unless otherwise specified by the Director. Should the maximum permitted operating conditions allowed in this permit not be attainable during the initial compliance testing, then the facility shall be limited in operation to the maximum operating conditions attained during testing. The permittee shall again be required to perform such compliance testing when maximum permitted operating conditions are attainable. The maximum operating conditions attained during compliance testing shall be the maximum operating conditions allowed by this permit.

a. Tests to determine compliance with PM emission limits shall be conducted in accordance with Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 C.F.R. 60, Appendix A.

b. Tests to determine compliance with SO_2 emission limits shall be conducted in accordance with Method 6, 6A, 6B, or 6C as set forth in 40 C.F.R. 60, Appendix A.

c. Tests to determine compliance with CO emission limits shall be conducted in accordance with Method 10, 10A, or 10B as set forth in 40 C.F.R. 60, Appendix A.

d. Tests to determine compliance with NO_x emission limits shall be conducted in accordance with Method 7, 7A, 7B, 7C, 7D, or 7E as set forth in 40 C.F.R. 60, Appendix A.

e. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25 or 25A as set forth in 40 C.F.R. 60, Appendix A.

f. Tests to determine compliance with HCl emission limits shall be conducted in accordance with Method 26 as set forth in 40 C.F.R. 60, Appendix A.

[45CSR13, R13-2376, B.8]

4.3.22. With regard to any testing required by the Director, the permittee shall submit to the Director of Air Quality a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place. **[45CSR13, R13-2376, B.9]**

4.4. Recordkeeping Requirements

4.4.1. For the purpose of demonstrating compliance with the 45CSR§7-4.1 hourly particulate matter emission limits specified in Condition 4.1.1 for Induction Furnace East (005P104), Induction Furnace West (005P105), Melting Furnace DC-1 (0005P107), Melting Furnace DC-2 (005P108), Melting Furnace DC-3 (005P109), Melting Furnace DC-5 (005P111), Melting Furnace DC-6 (005P112), Melting Furnace DC-7 (005P113), Melting Furnace DC-8 (005P114), Holding Furnace 1 (005P117), Holding Furnace 2 (005P118), Holding Furnace 3 (005P119), Holding Furnace 5 (005P121), Holding Furnace 6 (005P122), Holding Furnace 7 (005P123), and Holding Furnace 8 (005P124), the permittee shall maintain records of the amount of natural gas consumed on a monthly basis and the daily and average hourly charge/feed rates for each furnace. The permittee shall use the charge/feed rates and natural gas records along with stack test data, emission factors, or engineering calculations previously approved by the DAQ, to calculate the hourly particulate matter emission rates. The natural gas and feed/charge records along with the basis for the emission calculations (e.g. stack tests, emission factors, engineering calculations) shall be maintained in accordance with Condition 3.4.2. **[45CSR§30-5.1.c]**

4.4.2. For the purposes of determining compliance with the maximum charge/feed rates and natural gas combustion limits as set forth in Conditions 4.1.9, 4.1.10, and 4.1.11, the permittee shall maintain certified daily and monthly records of the following for: the amount of natural gas consumed on a monthly basis by each affected source and the daily and average hourly charge/feed rates of DC-10 (005P139, 005P140, and 005P141) and the Rotary Furnace (005P142). 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. Example recordkeeping forms from R13-2376 are provided in Appendix A.

The monthly natural gas usage records shall be used to calculate a 12-month rolling total natural gas usage rate in order to demonstrate compliance with the 4.1.9 annual natural gas limit. To demonstrate compliance with the TSP, PM_{10}, CO, NO_x, SO_2, VOC, and HCl hourly and annual emission limits in Condition 4.1.4, the permittee shall use the charge/feed rates and natural gas records along with stack test data, emission factors, or engineering calculations previously approved by the DAQ, to calculate hourly and 12-month rolling total emissions. The natural gas and feed/charge records along with the basis for the emission calculations (e.g. stack tests, emission factors, engineering calculations) shall be maintained in accordance with Condition 3.4.2.

[45CSR13, R13-2376, B.10; 45CSR§30-5.1.c]

4.4.3. For the purpose of determining compliance with the hourly PM, HCl, SO_2, NO_x, and VOC emission limits specified in Condition 4.1.15 for the Melting Furnace DC-9A (005P115), Melting Furnace DC-9B (005P116), and Holding Furnace 9 (00P125), the permittee shall maintain records of the amount of natural gas combusted on a monthly basis by each affected source and the daily and average hourly charge/feed rates. The permittee shall use the charge/feed rates and natural gas records along with stack test data, emission factors, or engineering calculations previously approved by the DAQ to calculate hourly emission rates of PM, HCl, SO_2, NO_x, and VOC. The natural gas and feed/charge records along with the basis for the emission calculations (e.g. stack tests, emission factors, engineering calculations) shall be maintained in accordance with Condition 3.4.2. **[45CSR§30-5.1.c]**

4.4.4. Design information on the PTE from the Rotary Furnace (005P142) shall be maintained at the facility and the negative pressure in the PTE shall be monitored and recorded daily. In addition, negative pressure readings on the PTE shall be maintained for at least one year. **[45CSR§30-5.1.c]**

4.4.5. As required by 40 C.F.R. §63.10(b), the owner or operator shall maintain files of all information (including all reports and notifications) required by the general provisions and 40 C.F.R. 63, Subpart RRR.

a. 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.

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

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

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, Induction Furnace East {005P104}, Induction Furnace West {005P105}, Melting Furnace DC-3 {005P109}, Melting Furnace DC-5 {005P111}, Melting Furnace DC-6 {005P112}, and Dross Cooler/Breaker {005P106}) **[45CSR34; 40 C.F.R. §63.1517(a)]**

4.4.6. In addition to the general records required by 40 C.F.R. §63.10(b), 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:

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

(i) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken.

b. For each 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 of +14 $^{\circ}$C (+25 $^{\circ}$F), with a brief explanation of the cause of the excursion and the corrective action taken.

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

(i) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. 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 were blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken;

(ii) If lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken.

d. For each group 1 furnace (with or without add-on air pollution control devices), records of the 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.

e. For each continuous monitoring system, records required by 40 C.F.R. §63.10(c).

f. 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.

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

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

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

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

k. Records for any approved alternative monitoring or test procedure.

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

(i) Startup, shutdown, and malfunction plan;

(ii) OM&M plan; and

(iii) Site-specific secondary aluminum process unit emission plan (if applicable)

m. 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.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, Induction Furnace East {005P104}, Induction Furnace West {005P105}, Melting Furnace DC-3 {005P109}, Melting Furnace DC-5 {005P111}, Melting Furnace DC-6 {005P112}, and Dross Cooler/Breaker {005P106}) **[45CSR34; 40 C.F.R. §§63.1517(b)(1), (b)(1)(i), (b)(3), (b)(4), (b)(4)(i), (b)(4)(ii), (b)(5), (b)(6), (b)(7), (b)(8), (b)(12), (b)(13), (b)(14), (b)(15), (b)(16), (b)(17)]**

4.5. Reporting Requirements

4.5.1. *Startup, shutdown, and malfunction plan/reports.* The owner or operator must develop a written plan as described in 40 C.F.R. §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 for each event as required by 40 C.F.R. §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 40 C.F.R. §63.6(e)(3). In addition to the information required in 40 C.F.R. §63.6(e)(3), the plan must include:

a. Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and

b. 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.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, and Dross Cooler/Breaker {005P106}) **[45CSR34; 40 C.F.R. §63.1516(a)]**

4.5.2. *Excess emissions/summary report.* The owner or operator must submit semiannual reports according to the requirements in 40 C.F.R. §63.10(e)(3). Except, the owner or operator must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in 40 C.F.R. §63.10(e)(3)(v). When no deviations of parameters have occurred, the owner or operator must submit a report stating that no excess emissions occurred during the reporting period.

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

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

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

(iii) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan as described in 40 C.F.R. §63.6(e)(3).

(iv) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 C.F.R. 63, Subpart RRR.

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

b. Each report must include the following certification 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."

c. 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.

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, Induction Furnace East {005P104}, Induction Furnace West {005P105}, Melting Furnace DC-3 {005P109}, Melting Furnace DC-5 {005P111}, Melting Furnace DC-6 {005P112}, and Dross Cooler/Breaker {005P106}) **[45CSR34; 40 C.F.R. §§63.1516(b), (b)(1), (b)(1)(i), (b)(1)(iv), (b)(1)(v), (b)(1)(vi), (b)(1)(vii), (b)(2)(v), (b)(3)]**

4.5.3. *Annual compliance certifications.* For the purpose of annual certifications of compliance required by 40 C.F.R. part 70 or 71, the owner or operator must certify continuing compliance based upon, but not limited to, the following conditions:

a. Any period of excess emissions, as defined in 4.5.2.a, that occurred during the year were reported as required by 40 C.F.R. 63, Subpart RRR; and

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

(Melting Furnace DC-1 {005P107}, Melting Furnace DC-2 {005P108}, Melting Furnace DC-7 {005P113}, Melting Furnace DC-8 {005P114}, Melting Furnace DC-9A {005P115}, Melting Furnace DC-9B {005P116}, Melting Furnace DC-10A {005P139}, Melting Furnace DC-10B {005P140}, Holding Furnace 1 {005P117}, Holding Furnace 2 {005P118}, Holding Furnace 3 {005P119}, Holding Furnace 5 {005P121}, Holding Furnace 6 {005P122}, Holding Furnace 7 {005P123}, Holding Furnace 8 {005P124}, Holding Furnace 9 {005P125}, Holding Furnace 10 {005P141}, Rotary Furnace {005P142}, Induction Furnace East {005P104}, Induction Furnace West {005P105}, Melting Furnace DC-3 {005P109}, Melting Furnace DC-5 {005P111}, Melting Furnace DC-6 {005P112}, and Dross Cooler/Breaker {005P106}) **[45CSR34; 40 C.F.R. §63.1516(c)]**

4.6. Compliance Plan

4.6.1. None.

5.0 Source-Specific Requirements [Hot Line]

5.1. Limitations and Standards

5.1.1. 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 of 45CSR7 as specified below.

Emission Unit	Emission Unit ID	Maximum Allowable 45CSR§7-4.1 Particulate Matter Emission Limit (lb/hr)
Walking Beam Furnace	006P104	31.24
27 Heat Soaking Pits 337	006P105	176
168 Inch Hot Mill 351	006P107	38.2
4 Reheat Furnaces	006P109	10
110 Inch Hot Mill 355	006P110	38.2
5 Stand Hot Mill 361	006P113	38.2

[45CSR§7-4.1 and Table 45-7A]

5.1.2. The amount of natural gas burned as a fuel for the Ingot Pusher (006P119) shall not exceed 45,000 standard cubic feet per hour (scfh) or 250,696,379 standard cubic feet per year (scf/yr) for twelve (12) consecutive months. **[45CSR13, R13-2102, A.1]**

5.1.3. Emissions from the Ingot Pusher Furnace (006P119) shall not exceed the following:

Pollutant	lb/hr	TPY
Carbon Monoxide (CO)	1.80	5.02
Nitrogen Oxides (NO_x)	7.18	20.00
Sulfur Dioxide (SO_2)	0.03	0.10
Total PM	0.71	1.97
VOCs	0.14	0.38

Compliance with the hourly Total PM emission limit for the Ingot Pusher Furnace (006P119) shall demonstrate compliance with the less stringent hourly 45CSR§7-4.1 particulate matter emission limit. **[45CSR13, R13-2102, A.2 and B.3; 45CSR§7-4.1 and Table 45-7A]**

5.1.4. The following table provides a list of emission sources authorized to operate by this permit at the subject facility. In accordance with the information filed in Permit Application R13-2376, and any amendments or revisions thereto, the sources shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants. In addition, the following sources shall not exceed the specified Maximum Design Heat Input (MDHI), shall utilize the specified control device, and shall combust only the specified fuel:

Source ID	Source Description	Stack ID	MDHI (MMBtu/hr)	Fuel Combusted	Control Device (C/D)	C/D ID
006P120	Preheat Furnace	006S128	40.0	Natural Gas	None	N/A

[45CSR13, R13-2376, A.1]

5.1.5. Maximum hourly and annual air emission rates of total suspended particulate (TSP), particulate matter less than 10 microns (PM_{10}), carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxide (SO_2), and volatile organic compounds (VOCs) for the Preheat Furnace (006P120) shall be those as set forth in the table below. The annual emission limits are on a rolling yearly total.

Source ID	Stack ID	Description	TSP	PM_{10}	CO	NO_x	SO_2	VOCs	HCl
Hourly Emission Limits (pounds/hr)									
006P120	006S128	Preheat Furnace	0.30	0.30	3.29	3.80	0.02	0.22	N/A[(1)]
Annual Emission Limits (tpy)[(2)]									
006P120	006S128	Preheat Furnace	0.16	0.16	1.76	2.04	0.01	0.12	N/A[(1)]

[(1)]N/A = Not Applicable; There should be no HCl emissions from these sources
[(2)]Annual limits reflect 12-month Rolling Yearly Totals.

Compliance with the hourly TSP emission limit for the Preheat Furnace (006P120) shall demonstrate compliance with the less stringent hourly 45CSR§7-4.1 particulate matter emission limit. **[45CSR13, R13-2376, A.2, B.1, and B.2; 45CSR§7-4.1 and Table 45-7A]**

5.1.6. The annual consumption of natural gas for the Preheat Furnace (006P120) shall not exceed 42,000,000 ft^3. **[45CSR13, R13-2376, A.7]**

5.1.7. The emission rate of NO_x from the Preheat Furnace (006P120) shall not exceed 0.097 pounds of pollutant per MMBtu of heat input (lb/MMBtu). **[45CSR13, R13-2376, A.11]**

5.2. Monitoring Requirements

5.2.1. Compliance with the hourly emissions limitations for the Ingot Pusher (006P119) shall be determined based on a 24 hour rolling average. **[45CSR13, R13-2102, A.5]**

5.2.2. The permittee shall maintain an efficient combustion process in the Ingot Pusher (006P119) by conducting periodic maintenance checks as per the manufacturer's recommendations. **[45CSR13, R13-2102, A.6]**

5.2.3. The Walking Beam Furnace (006P104), 27 Heat Soaking Pits 337 (006P105), Reheat Furnaces (006P109), Ingot Pusher Furnace (006P119), and Preheat Furnace (006P120) shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Condition 3.1.16 of this permit. **[45CSR§§30-5.1.c and 12.7]**

5.3. Testing Requirements

5.3.1. At such times as may be required by the USEPA Administrator or the Director of the Division of Air Quality, testing to demonstrate compliance with the NO_x emission limit set forth under Condition 5.1.7 shall be conducted in accordance with Condition 4.3.20. **[45CSR13, R13-2376, A.14]**

5.4. Recordkeeping Requirements

5.4.1. Compliance with the 45CSR§7-4.1 hourly particulate matter emission limit specified in Condition 5.1.1 for the Walking Beam Furnace (006P104), 27 Heat Soaking Pits 337 (006P105), and 4 Reheat Furnaces (006P109) shall be demonstrated by maintaining records of the amount of natural gas consumed on a monthly basis and calculating an hourly particulate matter emission rate for the month based on the monthly natural gas consumption, the number of hours in the month, and AP-42 emission factors. The monthly natural gas usage records shall be maintained in accordance with Condition 3.4.2. **[45CSR§30-5.1.c]**

5.4.2. For the purpose of determining compliance with the hourly and annual natural gas usage limits specified in Condition 5.1.2 and the hourly and annual CO, NO_x, SO_2, Total PM, and VOC emission limits specified in Condition 5.1.3 for the Ingot Pusher (006P119), the permittee shall monitor and maintain a certified record of the amount of natural gas burned, in accordance with the monthly natural gas usage form located in Appendix B. These records shall be properly maintained on site for a period of not less than five (5) years and be made available to the Director, or his or her designated representative, upon request.

The monthly natural gas usage records shall be used to calculate an hourly and annual natural gas usage rate to demonstrate compliance with the 5.1.2 hourly and annual limits. The hourly usage rate shall be calculated by dividing the monthly natural gas usage by the hours of operation for the month and the annual usage rate shall be calculated based on a 12-month rolling total. To demonstrate compliance with the hourly and annual emission limits in Condition 5.1.3, these hourly and annual natural gas usage rates shall be used along with stack test data, emission factors, or engineering calculations previously approved by the DAQ, to calculate CO, NO_x, SO_2, Total PM, and VOC hourly and annual emissions.

[45CSR13, R13-2102, B.2; 45CSR§30-5.1.c]

5.4.3. For the purpose of determining compliance with the annual natural gas consumption limits specified in Condition 5.1.6 and the hourly and annual TSP, PM_{10}, CO, NO_x, SO_2, and VOC emission limits specified in Condition 5.1.5 for the Preheat Furnace (006P120), the permittee shall maintain certified daily and monthly records of the amount of natural gas consumed on a monthly basis. 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. Example recordkeeping forms from R13-2376 are provided in Appendix A.

The monthly natural gas usage records shall be used to calculate a 12-month rolling total natural gas usage rate in order to demonstrate compliance with the 5.1.6 annual limit. To demonstrate compliance with the hourly and annual emission limits in Condition 5.1.5, the permittee shall calculate an hourly natural gas usage rate by dividing the monthly natural gas usage by the hours of operation for the month and then use the hourly and 12-month rolling total natural gas usage rates along with stack test data, emission factors, or engineering calculations previously approved by the DAQ, to calculate TSP, PM_{10}, CO, NO_x, SO_2, and VOC hourly and annual emissions. **[45CSR13, R13-2376, B.10; 45CSR§30-5.1.c]**

5.5. Reporting Requirements

5.5.1. None

5.6. Compliance Plan

5.6.1. None.

6.0 Source-Specific Requirements [Cold Line Rolling]

6.1. Limitations and Standards

6.1.1. 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 of 45CSR7 as specified below.

Emission Unit	Emission Unit ID	Maximum Allowable 45CSR§7-4.1 Particulate Matter Emission Limit (lb/hr)
72 Inch Single Stand Cold Mill 384	007P101	35.4
72 Inch Tandem Stand Cold Mill 382	007P102	19.6
130 Inch Single Stand Cold Mill 386	007P103	38.2
5 Stand Cold Mill 381	007P105	33.8
Cold Roll Annealing Furnaces	007P107	36.36

[45CSR§7-4.1 and Table 45-7A]

6.1.2. In accordance with the information filed in Permit Application R13-0383, and any amendments or revisions thereto, the 72 Inch Single Stand Cold Mill 384 (007P101) and the 72 Inch Tandem Stand Cold Mill 382 (007P102) shall utilize Demisters (007C101 and 007C102, respectively) as control devices. **[45CSR13, R13-0383]**

6.1.3. The Demister (007C102) which controls oil mist (particulate matter) emissions from the 72 Inch Tandem Stand Cold Mill 382 (007P102) is subject to the requirements of 40 C.F.R. 64 – "Compliance Assurance Monitoring." The permittee shall develop and submit a plan which meets the requirements of 40 C.F.R. 64 at least ninety (90) days prior to the proposed restart of the 72 Inch Tandem Stand Cold Mill 382 (007P102) and Demister (007C102). The requirements of the CAM Plan shall be submitted as part of a Title V permit modification. The permittee shall not restart the 72 Inch Tandem Stand Cold Mill 382 (007P102) and Demister (007C102) until a Title V permit modification has been approved by the Director which incorporates the CAM Plan for the Demister (007C102). **[40 C.F.R. 64; 45CSR§30-12.7]**

6.2. Monitoring Requirements

6.2.1. The permittee shall maintain proper operation of the Demisters (007C101, 007C102, and 007C103) for the 72 Inch Single Stand Cold Mill 384 (007P101), 72 Inch Tandem Stand Cold Mill 382 (007P102), and 5 Stand Cold Mill 381 (007P105), and the Cyclone (007C104) for the 130 Inch Single Stand Cold Mill 386 (007P103) at all times that the equipment is in operation. The permittee shall also perform visible emission checks in accordance with Condition 3.2.1. **[45CSR§§30-5.1.c and 12.7]**

6.2.2. The Cold Roll Annealing Furnaces (007P107) shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Condition 3.1.16 of this permit. **[45CSR§§30-5.1.c and 12.7]**

6.3. Testing Requirements

6.3.1. None.

6.4. Recordkeeping Requirements

6.4.1. For the purpose of demonstrating compliance with the 45CSR§7-4.1 hourly particulate matter emission limit specified in Condition 6.1.1 for the Cold Roll Annealing Furnaces (007P107), the permittee shall maintain records of the amount of natural gas consumed on a monthly basis. The monthly natural gas usage records shall be used to calculate the hourly particulate matter emission rate by dividing the source's monthly natural gas usage by the hours of operation for the month and by using stack test data, emission factors, or engineering calculations previously approved by the DAQ. The monthly natural gas usage records and the basis for the emission calculations (e.g. stack tests, emission factors, engineering calculations) shall be maintained in accordance with Condition 3.4.2. **[45CSR§30-5.1.c]**

6.4.2. The permittee shall perform annual inspection and maintenance on the Demisters (007C101, 007C102, and 007C103) for the 72 Inch Single Stand Cold Mill 384 (007P101), 72 Inch Tandem Stand Cold Mill 382 (007P102), and 5 Stand Cold Mill 381 (007P105), and the Cyclone (007C104) for the 130 Inch Single Stand Cold Mill 386 (007P103). A record of these inspections, as well as any other major maintenance performed on the control devices shall be maintained in accordance with Condition 3.4.2. **[45CSR§30-5.1.c]**

6.5. Reporting Requirements

6.5.1. None.

6.6. Compliance Plan

6.6.1. None.

7.0 Source-Specific Requirements [Plate Department]

7.1. Limitations and Standards

7.1.1. 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 of 45CSR7 as specified below.

Emission Unit	Emission Unit ID	Maximum Allowable 45CSR§7-4.1 Particulate Matter Emission Limit (lb/hr)
Salem 12 Zone Heat Treat Furnace 373	008P102	6
120 Foot Aging Furnace 340	008P104	13.72
60 Foot Aging Furnace	008P105	8.1
Horizontal Heat Treat Furnace Addition #2	008P113	6.60
Aging Furnace #2	008P114	2.16

[45CSR§7-4.1 and Table 45-7A]

7.1.2. The following table provides a list of emission sources authorized to operate by this permit at the subject facility. In accordance with the information filed in Permit Application R13-2376, and any amendments or revisions thereto, the sources shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants. In addition, the following sources shall not exceed the specified Maximum Design Heat Input (MDHI), shall utilize the specified control device, and shall combust only the specified fuel:

Source ID	Source Description	Stack ID	MDHI (MMBtu/hr)	Fuel Combusted	Control Device (C/D)	C/D ID
008P112	Heat-Treat Furnace Addition	008S108	19.44	Natural Gas	None	N/A
008P111	Aging Furnace	008S109	7.68	Natural Gas	None	N/A

[45CSR13, R13-2376, A.1]

7.1.3. Maximum hourly and annual air emission rates of total suspended particulate (TSP), particulate matter less than 10 microns (PM_{10}), carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxide (SO_2), and volatile organic compounds (VOCs) for each of the sources listed under 7.1.2 shall be those as set forth in the table below. The annual emission limits are on a rolling yearly total.

Source ID	Stack ID	Description	TSP	PM_{10}	CO	NO_x	SO_2	VOCs	HCl
Hourly Emission Limits (pounds/hr)									
008P112	008S108	Heat-Treat Furnace Addition	0.14	0.14	1.60	1.95	0.01	0.1	N/A[(1)]
008P111	008S109	Aging Furnace	0.06	0.06	0.63	0.77	0.01	0.04	N/A[(1)]
Annual Emission Limits (tpy)[(2)]									
008P112	008S108	Heat-Treat Furnace Addition	0.15	0.15	1.71	2.08	0.01	0.11	N/A[(1)]
008P111	008S109	Aging Furnace	0.03	0.03	0.37	0.45	0.01	0.02	N/A[(1)]

[(1)]N/A = Not Applicable; There should be no HCl emissions from these sources.
[(2)]Annual limits reflect 12-month Rolling Yearly Totals.

Compliance with the hourly TSP emission limits for the Heat-Treat Furnace Addition (008P112) and Aging Furnace (008P111) shall demonstrate compliance with the less stringent hourly 45CSR§7-4.1 particulate matter emission limits. **[45CSR13, R13-2376, A.2, B.1, and B.2; 45CSR§7-4.1 and Table 45-7A]**

7.1.4. 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 Limit (ft^3)
008P112	Heat-Treat Furnace Addition	40,600,000
008P111	Aging Furnace	8,800,000

[45CSR13, R13-2376, A.7]

7.1.5. The individual emission rate of NO_x from the Heat-Treat Furnace Addition (008P112) and Aging Furnace (008P111) in pounds of pollutant per MMBtu of heat input (lb/MMBtu), shall not exceed 0.100. **[45CSR13, R13-2376, A.11]**

7.1.6. The amount of natural gas burned as a fuel for the Horizontal Heat Treat Furnace (008P110) shall not exceed 26,400 standard cubic feet per hour (scfh) or 198,940,937 standard cubic feet per year (scfy) for twelve (12) consecutive months. **[45CSR13, R13-2102, A.3]**

7.1.7. Emissions from the Horizontal Heat Treat Furnace (008P110) shall not exceed the following:

Pollutant	lb/hr	TPY
Carbon Monoxide (CO)	0.75	2.83
Nitrogen Oxides (NO_x)	4.91	18.50
Sulfur Dioxide (SO_2)	0.01	0.04
Total PM	0.30	1.12
VOCs	0.06	0.21

Compliance with the hourly Total PM emission limit for the Horizontal Heat Treat Furnace (008P110) shall demonstrate compliance with the less stringent hourly 45CSR§7-4.1 particulate matter emission limit. **[45CSR13, R13-2102, A.4 and B.3; 45CSR§7-4.1 and Table 45-7A]**

7.2. Monitoring Requirements

7.2.1. The Salem 12 Zone Heat Treat Furnace 373 (008P102), 120 Foot Aging Furnace 340 (008P104), 60 Foot Aging Furnace (008P105), Horizontal Heat Treat Furnace (008P110), Horizontal Heat Treat Furnace Addition (008P112), Horizontal Heat Treat Furnace Addition #2 (008P113), Aging Furnace (008P111), and Aging Furnace #2 (008P114) shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Condition 3.1.16 of this permit. **[45CSR§§30-5.1.c and 12.7]**

7.2.2. Compliance with the hourly emissions limitations for the Horizontal Heat Treat Furnace (008P110) shall be determined based on a 24 hour rolling average. **[45CSR13, R13-2102, A.5]**

7.2.3. The permittee shall maintain an efficient combustion process in the Horizontal Heat Treat Furnace (008P110) by conducting periodic maintenance checks as per the manufacturer's recommendations. **[45CSR13, R13-2102, A.6]**

7.3. Testing Requirements

7.3.1. At such times as may be required by the USEPA Administrator or the Director of the Division of Air Quality, testing to demonstrate compliance with the NO_x emission limit for the Horizontal Heat-Treat Furnace Addition (008P112) and Aging Furnace (008P111) set forth under Condition 7.1.5 shall be conducted in accordance with Condition 4.3.21. **[45CSR13, R13-2376, A.14]**

7.4. Recordkeeping Requirements

7.4.1. For the purpose of demonstrating compliance with the 45CSR§7-4.1 hourly particulate matter emission limits specified in Condition 7.1.1 for the Salem 12 Zone Heat Treat Furnace 373 (008P102), 120 Foot Aging Furnace 340 (008P104), 60 Foot Aging Furnace (008P105), Horizontal Heat Treat Furnace Addition #2 (008P113) and Aging Furnace #2 (008P114), the permittee shall maintain records of the amount of natural gas consumed on a monthly basis. The monthly natural gas usage records shall be used to calculate the hourly particulate matter emission rate by dividing the source's monthly natural gas usage by the hours of operation for the month and by using stack test data, emission factors, or engineering calculations previously approved by the DAQ. The monthly natural gas usage records and the basis for the emission calculations (e.g. stack tests, emission factors, engineering calculations) shall be maintained in accordance with Condition 3.4.2. **[45CSR§30-5.1.c]**

7.4.2. For the purpose of determining compliance with the hourly and annual natural gas usage limits specified in Condition 7.1.6 and the hourly and annual CO, NO_x, SO_2, Total PM, and VOC emission limits specified in Condition 7.1.7 for the Horizontal Heat Treat Furnace (008P110), the permittee shall monitor and maintain a certified record of the amount of natural gas burned, in accordance with the monthly natural gas usage form located in Appendix B. These records shall be properly maintained on site for a period of not less than five (5) years and be made available to the Director, or his or her designated representative, upon request.

The monthly natural gas usage records shall be used to calculate an hourly and annual natural gas usage rate to demonstrate compliance with the 7.1.6 hourly and annual limits. The hourly usage rate shall be calculated by dividing the monthly natural gas usage by the hours of operation for the month and the annual usage rate shall be calculated based on a 12-month rolling total. To demonstrate compliance with the hourly and annual emission limits in Condition 7.1.7, these hourly and annual natural gas usage rates shall be used along with stack test data, emission factors, or engineering calculations previously approved by the DAQ, to calculate CO, NO_x, SO_2, Total PM, and VOC hourly and annual emissions.

[45CSR13, R13-2102, B.2; 45CSR§30-5.1.c]

7.4.3. For the purpose of determining compliance with the annual natural gas consumption limits specified in Condition 7.1.4 and the hourly and annual TSP, PM_{10}, CO, NO_x, SO_2, and VOC emission limits specified in Condition 7.1.3 for the Heat-Treat Furnace Addition (008P112) and Aging Furnace (008P111), the permittee shall maintain certified daily and monthly records of the amount of natural gas consumed on a monthly basis. 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. Example recordkeeping forms from R13-2376 are provided in Appendix A.

The monthly natural gas usage records shall be used to calculate a 12-month rolling total natural gas usage rate in order to demonstrate compliance with the 7.1.4 annual limit. To demonstrate compliance with the hourly and annual emission limits in Condition 7.1.3, the permittee shall calculate an hourly natural gas usage rate by dividing the monthly natural gas usage by the hours of operation for the month and then use the hourly and 12-month rolling total natural gas usage rates along with stack test data, emission factors, or engineering calculations previously approved by the DAQ, to calculate TSP, PM_{10}, CO, NO_x, SO_2, and VOC hourly and annual emissions. **[45CSR13, R13-2376, B.10; 45CSR§30-5.1.c]**

7.5. Reporting Requirements

7.5.1. None.

7.6. Compliance Plan

7.6.1. None.

8.0 Source-Specific Requirements [Finishing Department]

8.1. Limitations and Standards

8.1.1. 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 of 45CSR7 as specified below.

Emission Unit	Emission Unit ID	Maximum Allowable 45CSR§7-4.1 Particulate Matter Emission Limit (lb/hr)
Coil Annealing Furnaces 413	009P103	32.84
Coil Annealing Furnaces 521	009P104	33.8

[45CSR§7-4.1 and Table 45-7A]

8.2. Monitoring Requirements

8.2.1. The Coil Annealing Furnaces 413 and 521 (009P103 and 009P104) shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas as stated in Condition 3.1.16 of this permit. **[45CSR§§30-5.1.c and 12.7]**

8.3. Testing Requirements

8.3.1. None.

8.4. Recordkeeping Requirements

8.4.1. For the purpose of demonstrating compliance with the 45CSR§7-4.1 hourly particulate matter emission limits specified in Condition 8.1.1 for the Coil Annealing Furnaces 413 and 521 (009P103 and 009P104), the permittee shall maintain records of the amount of natural gas consumed on a monthly basis. The monthly natural gas usage records shall be used to calculate the hourly particulate matter emission rate for each source by dividing each source's monthly natural gas usage by the hours of operation for the month and by using stack test data, emission factors, or engineering calculations previously approved by the DAQ. The monthly natural gas usage records and the basis for the emission calculations (e.g. stack tests, emission factors, engineering calculations) shall be maintained in accordance with Condition 3.4.2. **[45CSR§30-5.1.c]**

8.5. Reporting Requirements

8.5.1. None.

8.6. Compliance Plan

8.6.1. None.

9.0 Source-Specific Requirements [Miscellaneous Sources]

9.1. Limitations and Standards

9.1.1. 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 of 45CSR7 as specified below.

Emission Unit	Emission Unit ID	Maximum Allowable 45CSR§7-4.1 Particulate Matter Emission Limit (lb/hr)
Dust Handling System	010P201	15.09

[45CSR§7-4.1 and Table 45-7A]

9.2. Monitoring Requirements

9.2.1. None.

9.3. Testing Requirements

9.3.1. None.

9.4. Recordkeeping Requirements

9.4.1. Compliance with the PM emission limit for the Dust Handling System (010P201) shall be demonstrated through estimation of emissions from the sources using stack test data, emission factors, or engineering calculations previously approved by the DAQ. The permittee shall estimate emissions on a monthly basis and indicate compliance by dividing the total emissions for the month by the number of hours in the month. Each calculated emission rate and the applicable emission limit shall be recorded and maintained in accordance with Condition 3.4.2. Emissions in excess of the applicable standard emission rate shall be reported prior to the end of the month following the compliance period. **[45CSR§30-5.1.c]**

9.5. Reporting Requirements

9.5.1. None.

9.6. Compliance Plan

9.6.1. None.

Appendix A – R13-2376 Recordkeeping Forms

Monthly Natural Gas Combustion Tracking[1][2]

Month/Year	DC-10A, DC-10B		Holding Furnace		Rotary Furnace		Pre-Heat Furnace		Heat-Treat Furnace		Aging Furnace	
	Per Month[3]	12-Month Total[4]	Per Month[3]	12-Month Total[4]	Per Month[3]	12-Month Total[4]	Per Month[3]	12-Month Total[4]	Per Month[3]	12-Month Total[4]	Per Month[3]	12-Month Total[4]
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												

(1) The CERTIFICATION OF DATA ACCURACY statement appearing on the reverse side of this sheet must be completed within fifteen (15) days of the end of the reporting period.

(2) This record shall be maintained on site for a period of five (5) years from the date of certification. It shall be made available, upon request, to the Director or his (her) authorized representative.

(3) This column represents the per month consumption rate of natural gas by the specified equipment in cubic feet.

(4) The 12-month Rolling Yearly Total shall be determined by the sum of the natural gas consumed for the previous twelve (12) consecutive months. 12-month rolling Yearly Total shall not exceed the limits set forth under Sections 4.1, 5.1, and 7.1.

Daily Aluminum Charge/Feed Tracking[1][2]

Month, Year: _____

Day of Month	DC-10 Complex			Rotary Furnace		
	Charge/Feed (tons/day)	Hours of Operation	Average Daily Throughput (tons/hour)[3]	Charge/Feed (tons/day)	Hours of Operation	Average Daily Throughput (tons/hour)[3]
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
Total						
12-month Rol. Ave.[4]						

(1) The CERTIFICATION OF DATA ACCURACY statement appearing on the reverse side of this sheet must be completed within fifteen (15) days of the end of the reporting period.

(2) This record shall be maintained on site for a period of five (5) years from the date of certification. It shall be made available, upon request, to the Director or his (her) authorized representative.

(3) The average daily throughput is determined per Condition 4.1.10.

(4) The 12-month Rolling Yearly Total shall be determined by the sum of the aluminum charge/feed rates for the previous twelve (12) consecutive months. 12-month Rolling Yearly Total shall not exceed the limits set forth under Conditions 4.1.10 and 4.1.11.

Appendix B – R13-2102 Recordkeeping Form

Certified Monthly Record of Natural Gas Usage

Month ______________ Year ____________

Emission Unit	Gas Meter Reading This Month (ft^3)	Gas Meter Reading Previous Month (ft^3)	Gas Used This Month (ft^3)	12 Month Rolling Total (ft^3)
Ingot Pusher Furnace (006P119)				
Horizontal Heat Treat Furnace (008P110)				

Month ______________ Year ____________

Emission Unit	Gas Meter Reading This Month (ft^3)	Gas Meter Reading Previous Month (ft^3)	Gas Used This Month (ft^3)	12 Month Rolling Total (ft^3)
Ingot Pusher Furnace (006P119)				
Horizontal Heat Treat Furnace (008P110)				

Month ______________ Year ____________

Emission Unit	Gas Meter Reading This Month (ft^3)	Gas Meter Reading Previous Month (ft^3)	Gas Used This Month (ft^3)	12 Month Rolling Total (ft^3)
Ingot Pusher Furnace (006P119)				
Horizontal Heat Treat Furnace (008P110)				