

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT  
AIR QUALITY DIVISION**

December 18, 2010

**PERMIT TO INSTALL**  
340-07A

**ISSUED TO**  
Alloy Resource Corporation

**LOCATED AT**  
2281 Port City Boulevard  
Muskegon, Michigan

**IN THE COUNTY OF**  
Muskegon

**STATE REGISTRATION NUMBER**  
N7888

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Natural Resources and Environment. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

**November 13, 2009**

DATE PERMIT TO INSTALL APPROVED:

**December 18, 2009**

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

**PERMIT TO INSTALL**

**Table of Contents**

<b>Section</b>	<b>Page</b>
Alphabetical Listing of Common Abbreviations / Acronyms .....	2
General Conditions .....	3
Special Conditions .....	5
Emission Unit Summary Table.....	5
Special Conditions for EUUTILITIES .....	5
Special Conditions for EUZINC30.....	7
Flexible Group Summary Table .....	9
Special Conditions for FGFURNACES .....	9
Special Conditions for FGFACILITY .....	12
Appendices .....	14

**Common Abbreviations / Acronyms**

<b>Common Acronyms</b>		<b>Pollutant/Measurement Abbreviations</b>	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H <sub>2</sub> S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO <sub>x</sub>	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO <sub>2</sub>	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

\* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

### GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this Permit to Install.
  
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**
  
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

**SPECIAL CONDITIONS**

**EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Flexible Group ID</b>
EUREVERB50	An aluminum reverberatory furnace with 5,000 lbs/hr charge capability and 8.75 MMBtu/hr natural gas-fired burners. The furnace is exhausted through a common 50,000 cfm lime injected baghouse.	FGFURNACES
EUREVERB30	An aluminum reverberatory furnace with 3,000 lbs/hr charge capability and 5.25 MMBtu/hr natural gas-fired burners. The furnace is exhausted through a common 50,000 cfm lime injected baghouse.	FGFURNACES
EUZINC30	A zinc pot furnace with 5,000 lbs/hr charge capability and 2.4 MMBtu/hr natural gas-fired burners. The furnace is exhausted through a common 50,000 cfm lime injected baghouse.	NA
EUUTILITIES	Natural gas-fired space heaters with maximum heat input of 10 MMBtu/hr.	NA

**The following conditions apply to: EUUTILITIES**

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The heat input capacity of EUUTILITIES shall not exceed a maximum of 10 MM Btu per hour. (R 336.1205)

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

NA

**VI. MONITORING/RECORDKEEPING**

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**The following conditions apply to EUZINC30**

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.010 gr/dscf	Test Protocol	EUZINC30	SC VII.1.	R 336.1331(c), R 336.1225, 40 CFR 63.11465

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. total zinc melt/throughput	30,000 lb	day	EUZINC30	SC VI.2.	R 336.1331, R 336.1225

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUZINC30 unless the System Startup, Shutdown, and Malfunction Plan approved by the AQD District Supervisor has been implemented and is maintained. **(R 336.1225, R 336.1911)**
2. The permittee shall not operate EUZINC30 unless emissions from EUZINC30 are routed through a fabric filter or baghouse. **(40 CFR Part 63 Subpart TTTTTT (63.11465(b))**
3. The permittee shall not operate EUZINC30 unless the Bag Leak Detection System as specified in 40 CFR Part 63, Subpart TTTTTT, Section 63.11468(c) has been implemented and maintained. **(40 CFR Part 63, Subpart TTTTTT)**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall not operate EUZINC30 unless the site-specific monitoring plan for the Bag Leak Detection System as specified in 40 CFR Part 63, Subpart TTTTTT, Section 63.11468(c)(2) has been implemented and maintained. **(40 CFR Part 63, Subpart TTTTTT)**
2. The permittee shall keep, in a satisfactory manner, a log of the hourly melt/throughput rate, for EUZINC30. The permittee shall keep all records on file for a period of at least five years and

make them available to the Department upon request. **(R 336.1205, , R 336.1225, R 336.1702, 40 CFR Part 63 Subpart B and Subpart RRR)**

3. The permittee shall monitor emissions and operating and maintenance information in accordance with the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 61 / 63 Subparts A and TTTTTT. The permittee shall keep records of all source emissions and operating and maintenance information on file at the facility and make them available to the Department upon request. **(40 CFR Part 63 Subparts A & TTTTTT)**

**VII. REPORTING**

1. The permittee shall submit a Notification of Compliance Status to comply with the National Emission Standards for Hazardous Air Pollutants, Subpart TTTTTT. **(40 CFR Part 63 Subpart TTTTTT (63.11469)(b))**

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVDUSTCOL	60	40	R 336.1225 <sup>1</sup> , R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**FLEXIBLE GROUP SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Flexible Group ID</b>	<b>Emission Units Included in Flexible Group</b>	<b>Stack Identification</b>
FGFURNACES	EUREVERB50, EUREVERB30	SVDUSTCOL
FGFACILITY	All process equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

**The following conditions apply to: FGFURNACES**

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit*</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	3.0 lbs/hr	Test Protocol	FGFURNACES	SC V.1.	R 336.1331(c), R 336.1225
2. PM-10	2.6 lbs/hr	Test Protocol	FGFURNACES	SC V.1.	R 336.1331(c), R 336.1225
3. PM-10	0.005 gr/dscf	Test Protocol	FGFURNACES	SC V.1.	R 336.1331(c), R 336.1225
4. HCl	2.2 lbs/hr <sup>1</sup>	Test Protocol	FGFURNACES	SC V.1.	R 336.1225
5. HF	2.0 lbs/hr <sup>1</sup>	Test Protocol	FGFURNACES	SC V.1.	R 336.1225
5. chlorine	2.1 lbs/hr <sup>1</sup>	Test Protocol	FGFURNACES	SC V.1.	R 336.1225
6. Dioxins and Furans (D/F)	0.00021 grain of D/F TEQ** per ton of charge	Test Protocol	FGFURNACES	SC V.1.	R 336.1225, 40 CFR Part 63 Subpart RRR

\*Limit in this permit is for total emissions from FGFURNACES controlled by the common baghouse exhausted through SVFURNACES.

\*\* Grains of tetra-, penta-, hexa-, and octachlorinated dibenzo dioxins and furans expressed as 2,3,7,8-tetrachlorodibenzo(p)dioxin toxicity equivalent quotient per ton of feed or charge

**II. MATERIAL LIMITS**

<b>Material</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. total aluminum melt/throughput	8,000 lb/hr	Hour	FGFURNACES	SC VI.2.	R 336.1331, R 336.1225
2. reactive flux usage	600 lb/hr	In any hour of operation	FGFURNACES	SC VI.2.	R 336.1331, R 336.1225
3. ammonia usage for scavenging HCl	8583 lb/month	Monthly	FGFURNACES	SC VI.2.	R 336.1225

### **III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate FGFURNACES unless the System Startup, Shutdown, and Malfunction Plan approved by the AQD District Supervisor has been implemented and is maintained. **(R 336.1225, R 336.1911)**
2. The permittee shall not operate FGFURNACES unless the Operation, Maintenance & Monitoring (OM&M) plan as specified in Appendix A pursuant to 40 CFR Part 63, Subpart RRR, Sections 63.1506 and 63.1510 has been implemented and maintained. **(40 CFR Part 63, Subpart RRR)**
3. The permittee shall not operate FGFURNACES unless the baghouse is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the baghouse requires the following:
  - (a) Design and installation of the baghouse for the capture and collection of emissions from FGFURNACES shall 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 CFR Part 63, Subpart RRR, §63.1502);
  - (b) Captured emissions from FGFURNACES shall be vented through a closed system, except that dilution air may be added to emission streams for the sole purpose of controlling temperature at the inlet to a fabric filter; and
  - (c) Operation of the capture/collection system shall be operated according to the procedures and requirements in the OM&M plan.  
**(R 336.1211(a)(ii), R 336.1205(1)(a) and (3), R 336.1225, R 336.1910, 40 CFR Part 63 Subpart RRR)**

### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall equip FGFURNACES with a baghouse. **(R 336.1225, 40 CFR Part 63 Subpart RRR)**
2. The permittee shall monitor the pressure drop across the baghouse. When the pressure drop across the baghouse exceeds its associated allowable maximum pressure differential, the permittee shall clean the baghouse immediately and shall implement procedures specified in the approved System Startup, Shutdown, and Malfunction Plan to minimize emissions from FGFURNACES until normal operating conditions are restored. The maximum pressure differential for the baghouse shall be recorded in the OM&M plan and clearly displayed on the baghouse or its control panel at all times. **(R 336.1910)**
3. The permittee shall equip and maintain the baghouse with a bag leak detection system as specified in 40 CFR 63.1510 (f). **(40 CFR Part 63, Subpart RRR, R 336.1910)**

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days of the date of this permit, verification and quantification of PM, PM-10, hydrogen chloride, hydrogen fluoride, chlorine, VOC, and dioxin/furan emission rates from FGFURNACES, by testing at owner's expense, in accordance with Department requirements, will be required. Not less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following

the last date of the test. **(R 336.1205, R 336.1331, R 336.1225, R 336.2001, R 336.2003, R 336.2004, 40 CFR Part 63, Subpart RRR)**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1201)**
2. The permittee shall keep, in a satisfactory manner, a log of all of the following:
  - a) the hourly melt/throughput rate
  - b) types of material charged
  - c) flux usage for FGFURNACES
  - d) ammonia usage for the scavenging of residual hydrogen chloride coming from FGFURNACESThe permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. **(R 336.1205, R 336.1220, R 336.1225, R 336.1702, 40 CFR Part 63 Subpart B and Subpart RRR)**
3. The permittee shall keep, in a satisfactory manner, daily records of the cleaning frequency of the baghouses. Such records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. **(R 336.1331, R 336.1225)**
4. The permittee shall keep, in a satisfactory manner for each bag leak detection, a written record system which describes values for the baseline (sensitivity) setting, response time setting, and alarm level(s) and a description of how each was established from the required stack test under 40 CFR Subpart RRR. **(40 CFR Part 63 Subpart RRR, 63.1510 (f))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVDUSTCOL	60	40	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**The following conditions apply Source-Wide to: FGFACILITY**

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate FGFACILITY unless the Scrap Management Plan approved by the AQD District Supervisor has been implemented and is maintained. The Scrap Management Plan shall include provisions to prohibit mercury containing materials or devices in the scrap. **(R 336.1225, R 336.1911, 40 CFR Part 63, Subpart RRR)**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor and record all emissions and operating information required to comply with the Federal National Emission Standards for Hazardous Air Pollutants (NESHAP) specified in 40 CFR Part 63, Subpart RRR. **(40 CFR Part 63, Subpart RRR)**
2. For operation, maintenance, and monitoring data specified in this permit that are not required by 40 CFR Part 63, Subpart RRR, the permittee shall keep all required calculations and records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. For operation, maintenance, and monitoring data required by 40 CFR Part 63, Subpart RRR, the permittee shall keep all required calculations and records as specified in the OM&M plan. All source emissions data and operating data shall be kept on file at a location approved by the AQD District Supervisor for a period of at least five years and made available to the AQD upon request. **(R 336.1205(3), 40 CFR Part 63, Subpart RRR)**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

## APPENDIX A

### Operation, Maintenance, and Monitoring (OM&M) Plan (40 CFR Part 63 Subparts A and RRR)

#### Monitoring and Compliance Requirements 40 CFR § 63.1510 Monitoring Requirements:

The permittee shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the plan to the AQD District Supervisor for review and approval. The plan shall contain the following information:

- (1) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for FGFURNACES and the associated fabric filter control devices.
- (2) A monitoring schedule for FGFURNACES.
- (3) Procedures for the proper operation and maintenance of FGFURNACES and each associated fabric filter control device used to meet the applicable emission limits or standards in 40 CFR § 63.1505 (i)(3) and (7).
- (4) 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 CFR Part 63 Subpart A.
- (5) Procedures for monitoring process and control device parameters, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used.
- (6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in paragraph (1) above, including:
  - (i) Procedures to determine and record the cause of a 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.
- (7) A maintenance schedule for FGFURNACES and the associated fabric filter controls that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
- (8) The identification of each emission unit.
- (9) The specific control technology or pollution prevention measure to be used for each emission unit and the date of its installation or application.
- (10) The emission limit calculated for each emission unit and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit.
- (11) Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of 40 CFR Part 63 Subpart RRR
- (12) The monitoring requirements applicable to each emission unit and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in (13) below.
- (13) Except as provided in (14) below, the permittee shall calculate and record the 3-day, 24-hour rolling average emissions of D/F for the secondary aluminum processing facility on a daily basis. (Note: the facility can be evaluated as a Secondary Aluminum Processing Unit as defined in Subpart RRR). To calculate the 3-day, 24-hour rolling average, the permittee shall:

- (i) Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing facility for each 24-hour day of operation using the feed/charge weight information required below (page 3). 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.
- (ii) 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.
- (iii) Divide the total emissions for the facility for the 24-hour period by the total material charged to the facility, or the weight of aluminum produced by the facility over the 24-hour period to provide the daily emission rate for the facility.
- (iv) Compute the 24-hour daily emission rate using Equation 4 of 40 CFR Part 63 Subpart RRR:

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

Where,

$E_{\text{day}}$  = The daily D/F emission rate for the facility for the 24-hour period;

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

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

$n$  = The number of emission units in the facility.

- (v) 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.

(14) Facility compliance by individual emission unit demonstration.

As an alternative to the procedures of paragraph (13) of this section, the permittee may demonstrate, through performance tests, that each individual emission unit within the facility is in compliance with the applicable emission limits for the emission unit.

(15) The facility 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.

**Labeling:**

The permittee shall inspect the labels for FGFURNACES at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR § 63.1506(b) are intact and legible. The labels shall identify each emission unit as a group 1 furnace and shall include the applicable operational standards and control methods, including (but not limited to) the type of charge to be used in the furnace, flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M Plan.

**Capture/Collection System:**

The permittee shall:

- (1) Install, operate, and maintain a capture/collection system for FGFURNACES; and
- (2) Inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR § 63.1506(c) and record the results of each inspection.

**Feed/Charge Weight:**

The permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from FGFURNACES, over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production shall be measured and recorded on an emission unit-by-emission unit basis.

As an alternative to a measurement device, the permittee may use a procedure acceptable to the AQD District Supervisor to determine the total weight of feed/charge or aluminum production to the affected source or emission unit.

- (1) The accuracy of the weight measurement device or procedure shall be  $\pm 1$  percent of the weight being measured. The permittee may apply to the AQD District Supervisor for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standard.
- (2) The permittee shall 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.

**Fabric Filters and Lime-Injected Fabric Filters:**

The permittee shall install, calibrate, maintain, and continuously operate a bag leak detection system as required below:

- (1) The permittee shall install and operate a bag leak detection system for each exhaust stack of a fabric filter.
- (2) Each triboelectric bag leak detection system shall 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, if approved, shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
- (3) The bag leak detection system shall 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.

- (4) The bag leak detection system sensor shall provide output of relative or absolute PM loadings.
- (5) The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.
- (6) The bag leak detection system shall 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 shall be located where it is easily heard by plant operating personnel.
- (7) The bag leak detector shall be installed downstream of the fabric filter.
- (8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (9) The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.
- (10) Following initial adjustment of the system, the permittee shall 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.

**Fabric Filter Inlet Temperature:**

- (1) The permittee shall 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 CFR Part 63 Subpart A.
- (2) The temperature monitoring device shall meet each of these performance and equipment specifications:
  - (i) The monitoring system shall record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period.
  - (ii) The recorder response range shall include zero and 1.5 times the average temperature established in the performance test according to the requirements in 40 CFR § 63.1512(n).
  - (iii) The reference method shall be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the U.S. EPA Administrator.

**Continuous Lime Injection System:**

The permittee shall:

- (1) 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 permittee shall increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The permittee 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 AQD District Supervisor, installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free flowing. If lime is found not to be free flowing, the permittee shall promptly initiate and complete corrective action, or
  - (iii) Subject to the approval of the AQD District Supervisor, 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 permittee shall promptly initiate and complete corrective action.
- (2) Record the lime feeder setting once each day of operation.

**Total Reactive Flux Injection Rate:**

The permittee shall:

- (1) Install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to FGFURNACES.
  - (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  $\pm 1$  percent of the weight of the reactive component of the flux being measured. The owner or operator may apply to the AQD District Supervisor 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  $\pm 1$  percent impracticable. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standards.
  - (iii) The permittee shall 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.
- (2) Calculate and record the gaseous or liquid reactive flux injection rate (kg/Mg or lb/ton) for each operating cycle or time period used in the performance test using the procedure in 40 CFR § 63.1512(o).
- (3) Record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight, and type of flux for each addition of:
  - (i) Gaseous or liquid reactive flux other than chlorine; and
  - (ii) Solid reactive flux.
- (4) Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in 40 CFR § 63.1512(o).
- (5) The permittee may apply to the U.S. EPA 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 permittee provides assurance through data and information that the affected source will meet the relevant emission standards on a continuous basis.

**Sidewell Group 1 Furnace with Add-On Air Pollution Control Devices:**

If applicable, the permittee shall:

- (1) Record in an operating log for each charge of a sidewell furnace that the level of molten metal was above the top of the passage between the sidewell and hearth during reactive flux injection.
- (2) Submit a certification of compliance with the operational standards in 40 CFR § 63.1506(m)(6) for each 6-month reporting period. Each certification must contain the information in 40 CFR § 63.1516(b)(2)(iii).

## **Performance Test/Compliance Demonstration**

### **40 CFR § 63.1511 Performance Test/Compliance Demonstration General Requirements:**

#### **Site-Specific Test Plan:**

Prior to conducting a performance test required by this subpart, the permittee shall prepare and submit a site-specific test plan meeting the requirements in 40 CFR § 63.7(c) Quality Assurance Program.

#### **Initial Performance Test:**

Following approval of the site-specific test plan, the permittee shall demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in 40 CFR § 63.1515(b). The permittee shall conduct each performance test according to the requirements of the general provisions in 40 CFR Part 63 subpart A and subpart RRR.

- (1) The permittee shall conduct each test while the affected source or emission unit is operating at the highest production level with charge materials representative of the range of materials processed by the unit and, if applicable, at the highest reactive fluxing rate.
- (2) Each performance test for a continuous process must consist of 3 separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of 3 hours.
- (3) Each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire process operating cycle.
- (4) Where multiple affected sources or emission units are exhausted through a common stack, pollutant sampling for each run must be conducted over a period of time during which all affected sources or emission units complete at least 1 entire process operating cycle or for 24 hours, whichever is shorter.
- (5) Initial compliance with an applicable emission limit or standard is demonstrated if the average of three runs conducted during the performance test is less than or equal to the applicable emission limit or standard.

#### **Test Methods:**

The permittee shall use the following method in appendix A to 40 CFR Part 60 to determine compliance with the applicable emission limit:

- (1) Method 1 for sample and velocity traverses.
- (2) Method 2 for velocity and volumetric flow rate.
- (3) Method 3 for gas analysis.
- (4) Method 4 for moisture content of the stack gas.
- (5) Method 5 for the concentration of PM.
- (6) Method 9 for visible emission observations.
- (7) Method 23 for the concentration of D/F.
- (9) Method 26A for the concentration of HCl. Where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the owner or operator must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system.

#### **Establishment of Monitoring and Operating Parameter Values:**

The permittee shall establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR § 63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the permittee shall use the appropriate procedures in this section and submit the information required by 40 CFR § 63.1515(b)(4) in the notification of compliance status report. The permittee may use existing data in addition to the results of performance tests to establish operating

parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the AQD District Supervisor:

- (1) The complete emission test report(s) used as the basis of the parameter(s) is submitted.
- (2) The same test methods and procedures as required by this subpart were used in the test.
- (3) The permittee certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report.
- (4) All process and control equipment operating parameters required to be monitored were monitored as required in this subpart and documented in the test report.

### **§ 63.1512 Performance Test/Compliance Demonstration Requirements and Procedures:**

#### **FGFURNACES:**

- (1) The permittee of a furnace that processes scrap other than clean charge materials with emissions controlled by a lime-injected fabric filter shall conduct performance tests to measure emissions of D/F at the outlet of the control device.
- (2) The permittee may choose to determine the rate of reactive flux addition to the furnace and assume, for the purposes of demonstrating compliance with the facility emission limit, that all reactive flux added to the furnace is emitted.
- (3) The permittee of a furnace that conducts reactive fluxing (except for cover flux) in the hearth, or that conducts reactive fluxing in the sidewell at times when the level of molten metal falls below the top of the passage between the sidewell and the hearth, must conduct the performance tests required by paragraph (1) or 2) of this section, to measure emissions from both the sidewell and the hearth.

#### **Feed/Charge Weight Measurement:**

During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the permittee shall measure (or otherwise determine) and record the total weight of feed/charge to FGFURNACES for each of the three test runs and calculate and record the total weight. A permittee that chooses to demonstrate compliance on the basis of the aluminum production weight shall measure the weight of aluminum produced by FGFURNACES instead of the feed/charge weight.

#### **Inlet Gas Temperature:**

The permittee of FGFURNACES using a lime-injected fabric filter shall use these procedures to establish an operating parameter value or range for the inlet gas temperature.

- (1) Continuously measure and record the temperature at the inlet to the lime injected fabric filter every 15 minutes during the D/F performance tests;
- (2) Determine and record the 15-minute block average temperatures for the 3 test runs; and
- (3) Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs.

#### **Flux Injection Rate:**

The permittee shall use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate.

- (1) Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the 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;
- (2) Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs;
- (3) Determine the total reactive chlorine flux injection rate by adding the recorded measurement of the total weight of chlorine in the gaseous or liquid reactive flux injected and

the total weight of chlorine in the solid reactive flux using Equation 5 of 40 CFR Part 63 Subpart RRR:

$$W_t = F_1W_1 + F_2W_2 \quad (\text{Eq. 5})$$

Where,

$W_t$  = Total chlorine usage, by weight;

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

$W_1$  = Weight of reactive flux gas injected;

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

$W_2$  = Weight of solid reactive flux;

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

(5) If a solid reactive flux other than magnesium chloride is used, the permittee shall derive the appropriate proportion factor subject to approval by the AQD District Supervisor.

#### **Lime Injection:**

The permittee of FGFURNACES using a lime-injected fabric filter system shall use these procedures during the 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.

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

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

#### **Bag Leak Detection System:**

The permittee of FGFURNACES using a bag leak detection system shall submit the information described in 40 CFR § 63.1515(b)(6) (analysis and supporting documentation demonstrating conformance with U.S. EPA guidance and specifications for bag leak detection systems) as part of the notification of compliance status report to document conformance with the specifications and requirements in 40 CFR § 63.1510(f).

#### **Labeling:**

The permittee shall submit the information described in 40 CFR § 63.1515(b)(3) as part of the notification of compliance status report to document conformance with the operational standard in 40 CFR § 63.1506(b). The labels shall identify each emission unit as a group 1 furnace and shall include the applicable operational standards and control methods, including (but not limited to) the type of charge to be used in the furnace, flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M Plan.

#### **Capture/Collection System:**

The permittee of FGFURNACES with an add-on control device shall submit the information described in 40 CFR § 63.1515(b)(2) as part of the notification of compliance status report to document conformance with the operational standard in 40 CFR § 63.1506(c) (capture/collection and closed vent system operated per the OM&M Plan).

## Calculations

### § 63.1513 Equations for Determining Compliance:

#### D/F Emission Limits:

Use Equation 7 of 40 CFR Part 63 Subpart RRR to determine compliance with an emission limit for D/F:

$$E = \frac{C \times Q \times K_1}{P} \quad (\text{Eq. 7})$$

Where,

E = Emission rate of D/F, kg/Mg (lb/ton) of feed;

C = Concentration of D/F, g/dscm (gr/dscf);

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);

K1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and

P = Production rate, Mg/hr (ton/hr).

#### Conversion of D/F Measurements to TEQ Units:

To convert D/F measurements to TEQ units, the permittee shall 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 § 63.1502 of this subpart, available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia, NTIS no. PB 90-145756.

#### Facility (Secondary Aluminum Processing Unit in Subpart RRR):

Use the procedures in paragraph (1) or the procedure in paragraph (2) of this section to determine compliance with emission limits for a secondary aluminum processing unit. (Note: the facility can be evaluated as a Secondary Aluminum Processing Unit as defined in Subpart RRR).

(1) Use Equation 11 of 40 CFR Part 63 Subpart RRR to compute the aluminum mass-weighted D/F emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit is less than or equal to the emission limit for the secondary aluminum processing unit ( $L_{cD/F}$ ) calculated using Equation 3 in 40 CFR § 63.1505(k).

$$E_{cD/F} = \frac{\sum_{i=1}^n (E_{tiD/F} \times T_{ti})}{\sum_{i=1}^n T_{ti}} \quad (\text{Eq. 11})$$

Where,

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

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

$$L_{cD/F} = \frac{\sum_{i=1}^n (L_{tiD/F} \times T_{ti})}{\sum_{i=1}^n T_{ti}} \quad (\text{Eq. 3})$$

Where,

$L_{cD/F}$  = The D/F emission limit for individual emission unit  $i$  in 40 CFR 63.1505(i)(3) for EU-RV3MELT, FGFURNACES, or EU-RF2 and

$L_{tiD/F}$  = The D/F emission limit for the secondary aluminum processing unit (facility).

(4) As an alternative to using the equations in paragraph (1) of this section, the permittee 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 40 CFR § 63.1505(i) and that each existing in-line fluxer is in compliance with the emission limits for a new in-line fluxer in 40 CFR § 63.1505(j).

## Notifications, Reports, and Records

### § 63.1515 Notifications:

#### Initial Notifications:

The permit to install application was sufficient to meet the initial notification requirements.

#### Notification of Compliance Status Report:

The permittee shall submit a notification of compliance status report within 60 days of the compliance date in Subpart RRR. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report shall include the information specified in paragraphs (1) through (7) of this section. If the permittee submits the information specified in this section at different times or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the information previously submitted. A complete notification of compliance status report shall include:

- (1) All information required in 40 CFR § 63.9(h). The permittee shall provide a complete performance test report for each affected source and emission unit for which a performance test is required. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests).
- (2) The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system).
- (3) Unit labeling as described in 40 CFR § 63.1506(b), including process type or furnace classification and operating requirements.
- (4) The compliant operating parameter value or range established for each affected source or emission unit with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, fabric filter inlet temperature), including the operating cycle or time period used in the performance test.

- (5) Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in 40 CFR § 63.1506(c).
- (6) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in 40 CFR § 63.1510(f).
- (7) Startup, shutdown, and malfunction plan, with revisions.

#### **§ 63.1516 Reports:**

##### **Startup, Shutdown, and Malfunction Plan/Reports:**

The permittee shall develop and implement a written plan as described in 40 CFR § 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 permittee shall also keep records of each event as required by 40 CFR § 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 CFR § 63.6(e)(3). In addition to the information required in 40 CFR § 63.6(e)(3), the plan shall include:

- (1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and
- (2) Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.

##### **Excess Emissions/Summary Report:**

As required by 40 CFR § 63.10(e)(3), the permittee shall submit semiannual reports within 60 days after the end of each 6-month period. Each report shall contain the information specified in 40 CFR § 63.10(c). When no deviations of parameters have occurred, the permittee shall submit a report stating that no excess emissions occurred during the reporting period.

- (1) A report shall 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) The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour.
  - (iii) The corrective action specified in the OM&M plan for visible emissions from an aluminum scrap shredder was not initiated within 1 hour.
  - (iv) An excursion of a compliant process or operating parameter value or range (e.g., lime injection rate or screw feeder setting, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature, definition of acceptable scrap, or other approved operating parameter).
  - (v) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan as described in 40 CFR § 63.6(e)(3).
  - (vi) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of this subpart.
  - (vii) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.
- (2) Each report shall include each of these certifications, as applicable:
  - (i) For each sidewall group 1 furnace with add-on air pollution control devices: "Each furnace was operated such that the level of molten metal remained above the top of the passage between the sidewall and hearth during reactive fluxing, and reactive flux, except for cover flux, was added only to the sidewall or to a furnace hearth equipped

with an add-on air pollution control device for D/F emissions during this reporting period.”

- (3) The permittee shall 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.

**Annual Compliance Certifications:**

For the purpose of annual certifications of compliance required by 40 CFR Part 70 or 71, the owner or operator must certify continuing compliance based upon, but not limited to, the following conditions:

- (1) Any period of excess emissions, as defined in paragraph (1) of the previous section of this appendix (**Excess emissions/summary report**), that occurred during the year were reported as required by this subpart; and
- (2) All monitoring, recordkeeping, and reporting requirements were met during the year.

**§ 63.1517 Records:**

(a) As required by 40 CFR § 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart.

- (1) The permittee shall retain each record for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent two years of records must be retained at the facility. The remaining three years of records may be retained off site.
- (2) The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and
- (3) The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

(b) In addition to the general records required by 40 CFR § 63.10(b), the permittee of a new or existing affected source (including an emission unit in a secondary aluminum processing unit) shall maintain records of:

(1) For FGFURNACES:

- (i) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken.
- (ii) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken.

(2) For group 1 furnace FGFURNACES subject to D/F emission standards with emissions controlled by a lime-injected fabric filter, records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14 °C (+25 °F), with a brief explanation of the cause of the excursion and the corrective action taken.

(3) 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 where 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.
- (iii) If lime addition rate for a non-continuous lime injection system is monitored pursuant to the approved alternative monitoring requirements in 40 CFR § 63.1510(v), records of the time and mass of each lime addition during each operating cycle or time period used in the performance test and calculations of the average lime addition rate (lb/ton of feed/charge).
- (5) For FGFURNACES, records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.
- (6) For each continuous monitoring system, records required by 40 CFR § 63.10(c).
- (7) For each affected source and emission unit subject to an emission standard in kg/Mg (lb/ton) of feed/charge, records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test.
- (8) Operating logs for FGFURNACES, a sidewall furnace with add-on air pollution control devices documenting conformance with operating standards for maintaining the level of molten metal above the top of the passage between the sidewall and hearth during reactive flux injection and for adding reactive flux only to the sidewall or a furnace hearth equipped with a control device for D/F emissions.
- (8) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.
- (9) Records of annual inspections of emission capture/collection and closed vent systems.
- (10) Records for any approved alternative monitoring or test procedure.
- (11) 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) For major sources, OM&M plan; and
  - (iii) Site-specific secondary aluminum processing unit emission plan (if applicable).
- (12) 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.

## **Other Requirements**

### **§ 63.1518 Applicability of General Provisions:**

The requirements of the general provisions in 40 CFR Part 63 Subpart A that are applicable to the permittee subject to the requirements of this subpart are shown in appendix A to 40 CFR Part 63 Subpart RRR.