

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

September 27, 2013

PERMIT TO INSTALL
504-96F

ISSUED TO
Continental Aluminum, Inc.

LOCATED AT
29201 Milford Road
New Hudson, Michigan

IN THE COUNTY OF
Oakland

STATE REGISTRATION NUMBER
N6013

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. 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:

September 3, 2013

DATE PERMIT TO INSTALL APPROVED:

September 27, 2013

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO ₂ e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H ₂ S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	kW	Kilowatt
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	Malfuction Abatement Plan	NO _x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonably Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO ₂	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound
VE	Visible Emissions	yr	Year

* 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 48909-7760, 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.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EUHOLDING	30,000 lb capacity Group 2 holding furnace. Holds only clean charge and performs fluxing using only nonreactive, non-HAP-containing/non-HAP-generating gases or agents. 4 natural gas-fired burners; 8 MMBtu/hr total heat input capacity	FGFACILITY
EURV1PROCHTR	Reverberatory Furnace #1 (De-Ox) Hearth Chamber and Process Heater; 2 natural gas-fired burners each at 10 MMBtu/hr (20 MMBtu/hr total); 23,500 ACFM	FGRV1 FGFACILITY
EURV1MELT	Reverberatory Furnace #1 (De-Ox) Raw Material Charging and Melting. 45,000 SCFM High Temp lime-injected Baghouse (BH-3)	FGRV1 FGMACTRRR FGFACILITY
EURV1POUR	Reverberatory Furnace #1 Pouring. 2 uncontrolled tapping line stacks	FGRV1 FGFACILITY
EURV2PROCHTR	Reverberatory Furnace #2 (Alloy) Hearth Chamber and Process Heater. 2 natural gas-fired burners each at 10 MMBtu/hr (20 MMBtu/hr total). 23,500 ACFM	FGRV2 FGFACILITY
EURV2MELT	Reverberatory Furnace #2 (Alloy) Raw Material Charging and Melting. 45,000 SCFM High Temp lime-injected Baghouse (BH-1)	FGRV2 FGMACTRRR FGFACILITY
EURV2POUR	Reverberatory Furnace #2 Pouring. One uncontrolled tapping line stack	FGRV2 FGFACILITY
EUROTMELT	Rotary Furnace Process Heater, raw material charging and melting, hot dross processing. 14 MMBtu/hr natural gas-fired burner. 45,000 SCFM High Temp lime-injected Baghouse BH-2	FGROTARY FGMACTRRR FGFACILITY
EUROTARYPOUR	Rotary Furnace pour pouring or molten metal transfer. Some emissions from launder chutes to hood for BH-2. Also, in-plant emissions	FGROTARY FGFACILITY
EUSCRAPSHREDDER	Scrap shredder loading, shredding and preparation by sizing, and scrap transfer by conveyor to storage bins. 20,000 pounds per hour capacity. Emissions controlled by cyclone and baghouse in series, and vent inside the building.	FGFACILITY

The following conditions apply to: EUHOLDING

DESCRIPTION: 30,000 lb capacity Group 2 holding furnace. Holds only clean charge and performs fluxing using only nonreactive, non-HAP-containing/non-HAP-generating gases or agents. 4 natural gas-fired burners; 8 MMBtu/hr total heat input capacity

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

N/A

II. MATERIAL LIMITS

1. The permittee shall add only clean charge, as defined in 40 CFR 63.1503, and only non-reactive, non-HAP-containing/non-HAP-generating gases or agents to EUHOLDING. **(R 336.1224, R 336.1225, 40 CFR 63.1503)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall operate EUHOLDING in accordance with the work practice/pollution prevention measures documented in the System Startup, Shutdown, and Malfunction Plan and the within the parameter values or ranges established in the facility Operation, Maintenance, and Monitoring Plan (OM&M). **(R 336.1224)**

IV. DESIGN/EQUIPMENT PARAMETERS

N/A

V. TESTING/SAMPLING

N/A

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of the weight and description of all charge materials and fluxing materials or agents added to EUHOLDING. **(R 336.1205, R 336.1224, R 336.1225)**

VII. REPORTING

N/A

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:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVHOLDING	36	53	40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENTS

N/A

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGRV1	Reverberatory Furnace #1 produces De-Ox products. FGRV1 consists of two natural gas-fired burners, raw material charging and melting, and a pouring operation. Combustion products from the burners and hearth chamber emissions are exhausted to the atmosphere through SVHTRRVRB#1. Raw material charging and melting is hooded and emissions are vented to a lime-injected baghouse (BH-3) and exit through SVBHRVRB#1. The pouring operation has two uncontrolled tapping line stacks (SVTL1 and SVTL2).	EURV1PROCHTR EURV1MELT EURV1POUR
FGRV2	Reverberatory Furnace #2 produces Alloy products. FGRV2 consists of two natural gas-fired burners, raw material charging and melting, and a pouring operation. Combustion products from the burners and hearth chamber emissions are exhausted to the atmosphere through SVHTRRVRB#2. Raw material charging and melting is hooded and emissions are vented to a lime-injected baghouse (BH-1) and exit through SVBHRVRB#2. The pouring operation has one uncontrolled tapping line stack (SVTL3).	EURV2PROCHTR EURV2MELT EURV2POUR
FGROTARY	Rotary Furnace produces aluminum sow, and molten metal for transfer to other in-plant furnaces. FGROTARY consists of a natural gas-fired burner, raw material charging and hot dross processing, sow pouring and molten metal transfer operations. Both melting and combustion emissions are vented to a lime-injected baghouse (BH-2) and exit through SVBHROTARY.	EUROTMELT EUROTARYPOUR
FGMACTRRR	An existing secondary aluminum processing facility that is (or is part of) an area source of HAPs	EURV1MELT EURV2MELT EUROTMELT
FGFACILITY	All equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

The following conditions apply to: FGRV1

DESCRIPTION: Reverberatory Furnace #1 produces De-Ox products. FGRV1 consists of two natural gas-fired burners each with a heat input of 10 MMBtu (total 20 MMBtu capacity), raw material charging and melting, and a pouring operation. Combustion products from the burners and hearth chamber emissions are exhausted to the atmosphere through SVHTRVRB#1. The pouring operation has two uncontrolled tapping line stacks (SVTL1 and SVTL2).

Emission Units: EURV1PROCHTR, EURV1MELT, EURV1POUR

POLLUTION CONTROL EQUIPMENT: Raw material charging and melting is hooded and emissions are vented to a 45,000 SCFM high temp lime-injected baghouse (BH-3) and exit through SVBHRVRB#1.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.40 lb/ton ¹ of feed to sidewall	Test protocol *	EURV1PROCHTR EURV1MELT	SC V.1	R 336.1331(c) R 336.1225 R 336.1224(1)
2. PM	4.8 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EURV1PROCHTR EURV1MELT	SC VI.2	R 336.1331(c) R 336.1225 R 336.1224(1)
3. PM 10	2.0 lb/hr	Test protocol *	EURV1PROCHTR EURV1MELT	SC V.1	40 CFR 52.51(c) and (d)
4. PM 2.5	1.4 lb/hr	Test protocol *	EURV1PROCHTR EURV1MELT	SC V.1	40 CFR 52.51(d)
5. PM 2.5	4.8 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EURV1PROCHTR EURV1MELT	SC VI.2	40 CFR 52.51(d)
6. HCl	0.40 lb/ton ¹ of feed to sidewall	Test protocol *	EURV1PROCHTR EURV1MELT	SC V.1	R 336.1225 R 336.1224(1)
7. HCl	1.95 lb/hr	Test protocol *	EURV1PROCHTR EURV1MELT	SC V.1	R 336.1225 R 336.1224(1)
8. HCl	4.68 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EURV1PROCHTR EURV1MELT	SC VI.2	R 336.1225 R 336.1224(1)
9. VOC	0.30 lb/ton ¹ of feed to sidewall	Test protocol *	EURV1PROCHTR EURV1MELT	GC 13	R 336.1702
10. VOC	1.5 lb/hr	Test protocol *	EURV1PROCHTR EURV1MELT	GC 13	R 336.1702
11. VOC	3.6 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EURV1PROCHTR EURV1MELT	GC 13	R 336.1702
12. HF	1.0 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EURV1PROCHTR EURV1MELT	SC V.1 SC VI.2	R 336.1225 R 336.1224

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
<p>¹ Emissions in lb/ton and tpy shall be calculated based on the material fed to the sidewell, excluding molten metal. *Test protocol shall specify averaging time.</p>					

II. MATERIAL LIMITS

1. The total charge of materials to the sidewell of FGRV1, excluding molten metal, shall not exceed the maximum charging rate over the same time period defined by the most recent AQD approved stack test and maintained in the facility Operation, Maintenance, and Monitoring (OM&M) plan. **(R 336.1331, R 336.1225)**
2. The permittee shall not exceed the maximum amount of flux usage (in lbs/ton of feed) for FGRV1 that was defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1224, 40 CFR 63.1512)**
3. The permittee shall not use any gaseous chlorine in FGRV1. **(R 336.1225)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall operate FGRV1 in accordance with the work practice/pollution prevention measures documented in the System Startup, Shutdown, and Malfunction Plan and within the parameter values or ranges established by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1224)**
2. During cleaning of the hearth of FGRV1, the furnace pressure regulation damper shall be set to the fully closed position to minimize the exhaust air flow through SVHTRRVRB#1. The damper position shall be clearly labeled and visible. **(R 336.1331, R 336.1224(1))**
3. The lime injection rate (lb/hr) in lime-injected baghouse BH-3 when EURV1MELT is operating shall be maintained at or above the level defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1331, R 336.1224, 40 CFR 63.1506(m)(4))**
4. The fabric filter inlet temperature for operation of lime-injected baghouse BH-3 shall be maintained at or below the level defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1331, R 336.1224, 40 CFR 63.1506(m)(3))**
5. The permittee shall maintain the parameter values and ranges provided in the facility Scrap Inspection Plan to meet applicable VOC requirements. **(R 336.1702)**
6. The permittee shall operate the sidewell of the furnace such that:
 - a. The level of molten metal remains above the top of the passage between the sidewell and hearth during reactive flux injection.
 - b. Reactive flux is added only in the sidewell.**(R 336.1224, 40 CFR 63.1506(m)(6))**
7. The permittee shall only charge clean molten aluminum directly to the hearth of FGRV1. **(R 336.1224, R 336.1225, R 336.1331, 40 CFR 52.51(c) and (d))**
8. The capture device (hood) for the sidewell of FGRV1 shall be operated properly to minimize fugitive emissions. **(R 336.1331, R 336.1224(1))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EURV1MELT unless lime-injected baghouse BH-3 is installed and operating properly. **(R 336.1211(a)(ii), R 336.1205(1)(a), R 336.1205(3), R 336.1224(1))**
2. The permittee 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 CFR 63 Subpart A. **(40 CFR 63 Subpart A, 40 CFR 63.1510(h))**

3. The permittee shall equip and maintain baghouse BH-3 with a temperature alarm that will alert the furnace operator when the baghouse inlet temperature exceeds the limit defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1910)**
4. The permittee shall equip and maintain baghouse BH-3 with a pressure drop indicator. **(R 336.1910)**
5. The permittee shall verify that lime is always free-flowing by either:
 - a. 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
 - b. Installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the owner or operator must promptly initiate and complete corrective action, or
 - c. 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.**(R 336.1910, 40 CFR 63.1510(i))**
6. The permittee shall equip and maintain BH-3 with a bag leak detection system. **(R 336.1331, R 336.1910, 40 CFR 60.1510(f))**
7. The permittee shall calibrate, operate, and maintain a device to measure and record the total weight of materials charged to the sidewall of FGRV1 over the same time period used in the performance test and maintained in the facility OM&M plan. **(R 336.1331, R 336.1225)**

V. TESTING/SAMPLING

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

1. Verification and quantification of PM, PM 10, PM 2.5, hydrogen chloride, and hydrogen fluoride emission rates from SVBHRVRB#1 and SVHTRRVRB#1 by testing at owner's expense, in accordance with Department requirements, will be required within 180 days of the issuance of this permit. If verification is required, no less than 30 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 336.2001, R 336.2003, R 336.2004, 40 CFR 63.1511, 40 CFR 63.1512)**

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 by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331(c), 40 CFR 52.51(d))**
2. The permittee shall calculate the PM, PM 2.5, HCl, and HF emission rates, expressed in the same units as the emission limits, from FGRV1 for each calendar month and 12-month rolling time period, using a method acceptable to the AQD District Supervisor. Calculations shall be based on total charge of materials to the sidewall of FGRV1. The permittee shall keep records of emission rates on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331(c), 40 CFR 52.51(d))**

3. The permittee shall measure and keep records of the weight and description of the materials charged to FGRV1 over the time period used in the most recent AQD approved stack test and maintained in the facility OM&M plan, and for each calendar month and 12-month rolling time period. When adding molten metal, the permittee shall keep separate records on molten additions. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331(c), 40 CFR 63.1506(d))**
4. Records of the lime usage rate over the time period used in the most recent AQD approved stack test, and pressure drop in lime-injected baghouse BH-3, 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 336.1224)**
5. If an excess baghouse inlet temperature alarm occurs during the operation of lime-injected baghouse BH-3, a record of each incident and actions taken to resolve the excess temperature condition 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 336.1224)**
6. The permittee shall calculate and keep records of the total reactive flux injection rate for each operating cycle or time period used in the most recent AQD approved stack test. **(40 CFR 63.1510 (j))**
7. The bag leak detection system for BH-3 must be equipped with a device to continuously record the output signal from the sensor, and with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. **(R 336.1331, R 336.1910, 40 CFR 60.1510(f))**
8. If the bag leak detection alarm is activated during the operation of lime-injected baghouse BH-3, a record of each incident and corrective actions taken 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 336.1910, 40 CFR 60.1510(f))**
9. The permittee shall conduct all necessary maintenance and make all necessary attempts to keep all components of baghouse BH-3 maintained and operating in a satisfactory manner at all times. The permittee shall maintain a log of all significant maintenance activities conducted and all significant repairs made to FGRV1. Maintenance records for the baghouse shall be consistent with the Preventative Maintenance Program specified in Appendix B. All records shall be kept on file and made available to the Department upon request. **(R 336.1910, R 336.1911)**
10. The permittee shall monitor and record, in a satisfactory manner, that the level of molten metal was above the top of the passage between the sidewall and hearth during reactive flux injection for each charge of the sidewall. **(40 CFR 63.15510(n))**
11. The permittee shall keep a record of the times when the hearth of FGRV1 was cleaned. **(R 336.1331, R 336.1224(1))**

VII. REPORTING

N/A

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:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBHRVRB#1	46	80	R 336.1901, R 336.1225
2. SVHTRVRB#1	46	53	R 336.1225

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable requirements of 40 CFR 63 Subpart RRR, as they apply to a Group 1 Furnace with add-on air pollution control. **(40 CFR 63 Subpart RRR)**

The following conditions apply to: FGRV2

DESCRIPTION: Reverberatory Furnace #2 produces Alloy products. FGRV2 consists of two natural gas-fired burners each with a heat input of 10 MMBtu (total 20 MMBtu capacity), raw material charging and melting, and a pouring operation. Combustion products from the burners and hearth chamber emissions are exhausted to the atmosphere through SVHTRVRB#2. The pouring operation has one uncontrolled tapping line stack (SVTL3).

Emission Units: EURV2PROCHTR, EURV2MELT, EURV2POUR

POLLUTION CONTROL EQUIPMENT: Raw material charging and melting is hooded and emissions are vented to a 45,000 SCFM high temp lime-injected baghouse (BH-1) and exit through SVBHRVRB#2.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.40 lb/ton ¹ of feed to sidewall	Test Protocol *	EURV2PROCHTR EURV2MELT	SC V.1	R 336.1331(c) R 336.1225 R 336.1224(1)
2. PM	4.8 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EURV2PROCHTR EURV2MELT	SC VI.2	R 336.1331(c) R 336.1225 R 336.1224(1)
3. PM 10	2.0 lb/hr	Test Protocol *	EURV2PROCHTR EURV2MELT	SC V.1	40 CFR 52.51(c) and (d)
4. PM 2.5	1.4 lb/hr	Test Protocol *	EURV2PROCHTR EURV2MELT	SC V.1	40 CFR 52.51(d)
5. PM 2.5	4.8 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EURV2PROCHTR EURV2MELT	SC VI.2	40 CFR 52.51(d)
6. HCl	0.40 lb/ton ¹ of feed to sidewall	Test Protocol *	EURV2PROCHTR EURV2MELT	SC V.1	R 336.1225 R 336.1224(1)
7. HCl	1.95 lb/hr	Test Protocol *	EURV2PROCHTR EURV2MELT	SC V.1	R 336.1225 R 336.1224(1)
8. HCl	4.68 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EURV2PROCHTR EURV2MELT	SC VI.2	R 336.1225 R 336.1224(1)
9. VOC	0.30 lb/ton ¹ of feed to sidewall	Test Protocol *	EURV2PROCHTR EURV2MELT	GC 13	R 336.1702
10. VOC	1.5 lb/hr	Test Protocol *	EURV2PROCHTR EURV2MELT	GC 13	R 336.1702
11. VOC	3.6 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EURV2PROCHTR EURV2MELT	GC 13	R 336.1702
12. HF	1.0 tpy ¹	12-month rolling time period as determined at the end of each calendar month	EURV2PROCHTR EURV2MELT	SC V.1 SC VI.2	R 336.1225 R 336.1224

¹ Emissions in lb/ton and tpy shall be calculated based on the amount of material fed to the sidewall, excluding molten metal.

*Test protocol shall specify averaging time.

II. MATERIAL LIMITS

1. The total charge of materials to the sidewell of FGRV2, excluding molten metal, shall not exceed the maximum charging rate over the same time period defined by the most recent AQD approved stack test and maintained in the facility Operation, Maintenance, and Monitoring (OM&M) plan. **(R 336.1331, R 336.1225)**
2. The permittee shall not exceed the maximum amount of flux usage (in lbs/ton of feed) for FGRV2 that was defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1224, 40 CFR 63.1512)**
3. The permittee shall not use any gaseous chlorine in FGRV2. **(R 336.1225)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall operate FGRV2 in accordance with the work practice/pollution prevention measures documented in the System Startup, Shutdown, and Malfunction Plan and within the parameter values or ranges established by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1224)**
2. During cleaning of the hearth of FGRV2, the furnace pressure regulation damper shall be set to the fully closed position to minimize the exhaust air flow through SVHTRRVRB#2. The damper position shall be clearly labeled and visible. **(R 336.1331, R 336.1224(1))**
3. The lime injection rate (lb/hr) in lime-injected baghouse BH-1 when EURV2MELT is operating shall be maintained at or above the level defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1331, R 336.1224, 40 CFR 63.1506(m)(4))**
4. The fabric filter inlet temperature for operation of lime-injected baghouse BH-1 shall be maintained at or below the level defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1331, R 336.1224, 40 CFR 63.1506(m)(3))**
5. The permittee shall maintain the parameter values and ranges provided in the facility Scrap Inspection Plan to meet applicable VOC requirements. **(R 336.1702)**
6. The permittee shall operate the sidewell of the furnace such that:
 - a. The level of molten metal remains above the top of the passage between the sidewell and hearth during reactive flux injection.
 - b. Reactive flux is added only in the sidewell.**(R 336.1224, 40 CFR 63.1506(m)(6))**
7. The permittee shall only charge clean molten aluminum directly to the hearth of FGRV2. **(R 336.1224, R 336.1225, R 336.1331, 40 CFR 52.51(c) and (d))**
8. The capture device (hood) for the sidewell of FGRV2 shall be operated properly to minimize fugitive emissions. **(R 336.1331, R 336.1224(1))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EURV2MELT unless lime-injected baghouse BH-1 is installed and operating properly. **(R 336.1211(a)(ii), R 336.1205(1)(a), R 336.1205(3), R 336.1224(1))**
2. The permittee 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 CFR 63 Subpart A. **(40 CFR 63 Subpart A, 40 CFR 63.1510(h))**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the visible emissions from SVBHRVRB#2 of FGRV2 on a continuous basis. Installation and operation of the continuous opacity monitoring (COM) system shall meet the timelines, requirements and reporting detailed in Appendix A. The COM data shall be used for determining compliance with GC 11. **(R 336.1301(1)(a), R 336.2001, R 336.2003, R 336.2004, Performance Specification (PS) 1 of Appendix B, 40 CFR, Part 60 (July 1, 1978), 40 CFR 60.7(c) and (d)), 40 CFR 60.13)**
4. The permittee shall equip and maintain baghouse BH-1 with a temperature alarm that will alert the furnace operator when the baghouse inlet temperature exceeds the limit defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1910)**
5. The permittee shall equip and maintain baghouse BH-1 with a pressure drop indicator. **(R 336.1910)**
6. The permittee shall verify that lime is always free-flowing by either:
 - a. 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
 - b. Installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the owner or operator must promptly initiate and complete corrective action, or
 - c. 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.**(R 336.1910, 40 CFR 63.1510(i))**
7. The permittee shall equip and maintain BH-1 with a bag leak detection system. **(R 336.1910, 40 CFR 60.1510(f))**
8. The permittee shall calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to FGRV2, as defined by 40 CFR 63.1503 over the same time period used in the performance test and maintained in the facility OM&M plan. **(40 CFR 63.1510(e))**

V. TESTING/SAMPLING

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

1. Verification and quantification of PM, PM 10, PM 2.5, hydrogen chloride, and hydrogen fluoride emission rates from SVBHRVRB#2 and SVHTRRVRB#2 by testing at owner's expense, in accordance with Department requirements, will be required within 180 days of restarting EURV2MELT. If verification is required, no less than 30 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 336.2001, R 336.2003, R 336.2004, 40 CFR 63.1511, 40 CFR 63.1512)**

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 by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331(c), 40 CFR 52.51(d))**

2. The permittee shall calculate the PM, PM 2.5, HCl, and HF emission rates, expressed in the same units as the emission limits, from FGRV2 for each calendar month and 12-month rolling time period, using a method acceptable to the AQD District Supervisor. Calculations shall be based on total charge of materials to the sidewall of FGRV2. The permittee shall keep records of emission rates on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331(c), 40 CFR 52.51(d))**
3. The permittee shall measure and keep records of the weight and description of the materials charged to FGRV2 over the time period used in the most recent AQD approved stack test and maintained in the facility OM&M plan, and for each calendar month and 12-month rolling time period. When adding molten metal, the permittee shall keep separate records on molten additions. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331(c), 40 CFR 63.1506(d))**
4. A record of the daily lime usage rate and pressure drop in lime-injected baghouse BH-1 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 336.1224)**
5. If an excess baghouse inlet temperature alarm occurs during the operation of lime-injected baghouse BH-1, a record of each incident and actions taken to resolve the excess temperature condition 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 336.1224)**
6. The permittee shall calculate and keep records of the total reactive flux injection rate for each operating cycle or time period used in the most recent AQD approved stack test. **(40 CFR 63.1510 (j))**
7. The bag leak detection system for BH-1 must be equipped with a device to continuously record the output signal from the sensor, and with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. **(R 336.1331, R 336.1910, 40 CFR 60.1510(f))**
8. If the bag leak detection alarm is activated during the operation of lime-injected baghouse BH-1, a record of each incident and corrective actions taken 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 336.1910, 40 CFR 60.1510(f))**
9. The permittee shall conduct all necessary maintenance and make all necessary attempts to keep all components of baghouse BH-1 maintained and operating in a satisfactory manner at all times. The permittee shall maintain a log of all significant maintenance activities conducted and all significant repairs made to FGRV2. Maintenance records for the baghouse shall be consistent with the Preventative Maintenance Program specified in Appendix B. All records shall be kept on file and made available to the Department upon request. **(R 336.1910, R 336.1911)**
10. The permittee shall monitor and record, in a satisfactory manner, that the level of molten metal was above the top of the passage between the sidewall and hearth during reactive flux injection for each charge of the sidewall. **(40 CFR 63.15510(n))**
11. The permittee shall keep a record of the times when the hearth of FGRV2 was cleaned. **(R 336.1331, R 336.1224(1))**

VII. REPORTING

N/A

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:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
SVBHRVRB#2	46	80	R 336.1901, R 336.1225
SVHTRRVRB#2	46	53	R 336.1225

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable requirements of 40 CFR 63 Subpart RRR, as they apply to a Group 1 Furnace with add-on air pollution control. **(40 CFR 63 Subpart RRR)**

The following conditions apply to: FGROTARY

DESCRIPTION: Rotary Furnace produces aluminum sow and molten metal for transfer to other in-plant furnaces. FGROTARY consists of a 14 MMBtu/hr natural gas-fired burner, raw material charging and hot dross processing, sow pouring and molten metal transfer operations. Both melting and combustion emissions are vented to a lime-injected baghouse (BH-2) and exit through SVBHROTARY.

Emission Units: EUROTMELT, EUROTARYPOUR

POLLUTION CONTROL EQUIPMENT: Both melting and combustion emissions are vented to a 45,000 SCFM high temp lime-injected baghouse (BH-2) and exit through SVBHROTARY.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.40 lb/ton of feed/charge ¹	Test protocol *	EUROTMELT	SC V.1	R 336.1331(c) R 336.1225 R 336.1224(1)
2. PM	5.7 tpy	12-month rolling time period as determined at the end of each calendar month	EUROTMELT	SC VI.2	R 336.1331(c) R 336.1225 R 336.1224(1)
3. PM 10	1.7 lb/hr	Test protocol *	EUROTMELT	SC V.1	40 CFR 52.51(c) and (d)
4. PM 2.5	1.7 lb/hr	Test protocol *	EUROTMELT	SC V.1	40 CFR 52.51(d)
5. PM 2.5	5.7 tpy	12-month rolling time period as determined at the end of each calendar month	EUROTMELT	SC VI.2	40 CFR 52.51(d)
6. HCl	1.5 lb/hr	Test protocol *	EUROTMELT	SC V.1	R 336.1225 R 336.1224(1)
7. HCl	5.0 tpy	12-month rolling time period as determined at the end of each calendar month	EUROTMELT	SC VI.2	R 336.1225 R 336.1224(1)
8. VOC	0.30 lb/ton of feed/charge ¹	Test protocol *	EUROTMELT	GC 13	R 336.1702
9. VOC	1.5 lb/hr	Test protocol *	EUROTMELT	GC 13	R 336.1702
10. VOC	2.7 tpy	12-month rolling time period as determined at the end of each calendar month	EUROTMELT	GC 13	R 336.1702
11. HF	1.0 lb/hr	Test protocol *	EUROTMELT	SC V.1	R 336.1225 R 336.1224
12. HF	1.5 tpy	12-month rolling time period as determined at the end of each calendar month	EUROTMELT	SC VI.2	R 336.1225 R 336.1224

¹ feed/charge refers to the total weight of material, including molten aluminum, clean charge, scrap, dross, flux, and alloying agents that enter the furnace, as defined by 40 CFR 63.1503

*Test protocol shall specify averaging time.

II. MATERIAL LIMITS

1. The total feed/charge of materials to FGROTARY shall not exceed the maximum charging rate per batch, defined by the most recent AQD approved stack test and maintained in the facility Operation, Maintenance, and Monitoring (OM&M) plan. Feed/charge refers to the total weight of material, including molten aluminum, clean charge, scrap, dross, flux, and alloying agents that enter the furnace, as defined by 40 CFR 63.1503. **(R 336.1331, R 336.1225)**
2. The total feed/charge of materials to FGROTARY shall not exceed the 42,000 tons per year. Feed/charge refers to the total weight of material, including molten aluminum, clean charge, scrap, dross, flux, and alloying agents that enter the furnace, as defined by 40 CFR 63.1503. **(R 336.1331, R 336.1225)**
3. The permittee shall not exceed the maximum amount of flux usage (in lbs/ton of feed/charge) for FGROTARY that was defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1224, 40 CFR 63.1512)**
4. The permittee shall not use any gaseous chlorine in FGROTARY. **(R 336.1225)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall operate FGROTARY in accordance with the work practice/pollution prevention measures documented in the System Startup, Shutdown, and Malfunction Plan and within the parameter values or ranges established by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1224)**
2. The lime injection rate (lb/batch) in lime-injected baghouse BH-2 when EUROTMELT is operating shall be maintained at or above the level defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1331, R 336.1224, 40 CFR 63.1506(m)(4))**
3. The fabric filter inlet temperature for operation of lime-injected baghouse BH-2 shall be maintained at or below the level defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1331, R 336.1224, 40 CFR 63.1506(m)(3))**
4. The permittee shall maintain the parameter values and ranges provided in the facility Scrap Inspection Plan to meet applicable VOC requirements. **(R 336.1702)**
5. The capture device (hood) for FGROTARY shall be operated properly to minimize fugitive emissions. **(R 336.1331, R 336.1224(1))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUROTMELT unless lime-injected baghouse BH-2 is installed and operating properly. **(R 336.1211(a)(ii), R 336.1205(1)(a), R 336.1205(3), R 336.1224(1))**
2. The permittee 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 CFR 63 Subpart A. **(40 CFR 63 Subpart A, 40 CFR 63.1510(h))**
3. The permittee shall equip and maintain baghouse BH-2 with a temperature alarm that will alert the furnace operator when the baghouse inlet temperature exceeds the level defined by the most recent AQD approved stack test and maintained in the facility OM&M plan. **(R 336.1910)**
4. The permittee shall equip and maintain baghouse BH-2 with a pressure drop indicator. **(R 336.1910)**

5. The permittee shall verify that lime is always free-flowing by either:
 - a. 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
 - b. Installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the owner or operator must promptly initiate and complete corrective action, or
 - c. 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.

(R 336.1910, 40 CFR 63.1510(i))
6. The permittee shall equip and maintain BH-2 with a bag leak detection system. **(R 336.1910, 40 CFR 60.1510(f))**
7. The permittee shall calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to FGROTARY for each batch. **(40 CFR 63.1510(e))**

V. TESTING/SAMPLING

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

1. Verification and quantification of PM, PM 10, PM 2.5, hydrogen chloride, and hydrogen fluoride emission rates from SVBHROTARY by testing at owner's expense, in accordance with Department requirements, will be required within 180 days of the issuance of this permit. If verification is required, no less than 30 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 336.2001, R 336.2003, R 336.2004, 40 CFR 63.1511, 40 CFR 63.1512)**

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 by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331(c), 40 CFR 52.51(d))**
2. The permittee shall calculate the PM, PM 2.5, HCl, and HF emission rates, expressed in the same units as the emission limits, from FGROTARY for each calendar month and 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep records of emission rates on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331(c), 40 CFR 52.51(d))**
3. The permittee shall measure and keep records of the weight and description of the materials charged to FGROTARY per batch, and for each calendar month and 12-month rolling time period. **(R 336.1225, 40 CFR 63.1506(d))**
4. A record of the lime usage rate (lbs/batch) and pressure drop in lime-injected baghouse BH-2 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 336.1224)**

5. If an excess baghouse inlet temperature alarm occurs during the operation of lime-injected baghouse BH-2, a record of each incident and actions taken to resolve the excess temperature condition 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 336.1224)**
6. The permittee shall calculate and keep records of the total reactive flux injection rate for each batch. **(40 CFR 63.1510 (j))**
7. The bag leak detection system for BH-2 must be equipped with a device to continuously record the output signal from the sensor, and with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. **(R 336.1331, R 336.1910, 40 CFR 60.1510(f))**
8. If the bag leak detection alarm is activated during the operation of lime-injected baghouse BH-2, a record of each incident and corrective actions taken 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 336.1910, 40 CFR 60.1510(f))**
9. The permittee shall conduct all necessary maintenance and make all necessary attempts to keep all components of baghouse BH-2 maintained and operating in a satisfactory manner at all times. The permittee shall maintain a log of all significant maintenance activities conducted and all significant repairs made to FGROTARY. Maintenance records for the baghouse shall be consistent with the Preventative Maintenance Program specified in Appendix B. All records shall be kept on file and made available to the Department upon request. **(R 336.1910, R 336.1911)**

VII. REPORTING

N/A

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:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBHROTARY	46	80	R 336.1901, R 336.1225

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable requirements of 40 CFR 63 Subpart RRR, as they apply to a Group 1 Furnace with add-on air pollution control. **(40 CFR 63 Subpart RRR)**

The following conditions apply to: FGMACTRRR

DESCRIPTION: An existing secondary aluminum processing facility that is (or is part of) an area source of HAPs.

Emission Units: EURV1MELT, EURV2MELT, EUROTMELT

POLLUTION CONTROL EQUIPMENT: Three 45,000 SCFM high temp lime-injected baghouses (BH-1, BH-2, and BH-3)

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Dioxins and Furans (D/F)	2.1×10^{-4} gr of D/F TEQ per ton of feed/charge ^{1, 2}	Test protocol *	EURV1MELT EURV2MELT EUROTMELT	SC V.1	40 CFR 63.1505(i)(3)
<p>¹ <i>feed/charge</i> refers to the total weight of material, including molten aluminum, clean charge, scrap, dross, flux, and alloying agents that enter the furnace, as defined by 40 CFR 63.1503.</p> <p>² The D/F emission limit (SC I.1) applies to each affected emission unit (EURV1MELT, EURV2MELT, and EUROTMELT) separately.</p> <p>*Test protocol shall specify averaging time.</p>					

II. MATERIAL LIMITS

N/A

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Within 90 days of the initial performance test, the permittee shall submit to the AQD District Supervisor, for review and approval, an Operation, Maintenance and Monitoring (OM&M) plan for each emission unit. The plan shall include, but is not limited to the following:
 - a. Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges (including acceptable pressure drop range across baghouse fabric filters), as applicable, for each process and control device. **(40 CFR 63.1510(b)(1))**
 - b. A monitoring schedule for each affected source and emission unit. **(40 CFR 63.1510(b)(2))**
 - 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 40 CFR 63.1505. **(40 CFR 63.1510(b)(3))**
 - d. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance. **(40 CFR 63.1510(b)(4))**
 - e. Procedures for monitoring process and control device parameters, including procedures to be used for determining feed/charge (or throughput) weight if a measurement device is not used. **(40 CFR 63.1510(b)(5))**
 - f. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in SC III.1.a. **(40 CFR 63.1510(b)(6))**
 - g. 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. **(40 CFR 63.1510(b)(7))**

The permittee shall maintain and implement the approved OM&M plans at all times. 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 this subpart, the permittee must promptly make all necessary revisions and resubmit the revised plan. If the permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the permittee submits a description of the changes and a revised plan incorporating them to the permitting authority. **(40 CFR 63.1510)**

2. The permittee 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., scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace, in-line fluxer).
 - 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.**(40 CFR 63.1506 (b))**
3. For each affected source or emission unit equipped with an add-on air pollution control device, the permittee 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";
 - 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.**(40 CFR 63.1506 (c))**
4. For each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge, the permittee must:
 - a. 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.**(40 CFR 63.1506 (d))**
5. For each affected source or emission unit equipped with an add-on air pollution control device, the permittee must operate the bag-leak detection system in accordance with the following:
 - a. Initiate corrective action within 1 hour of a bag leak detection system alarm.
 - b. Complete the corrective action procedures in accordance with the facility OM&M plan.
 - c. 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 permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the permittee to initiate corrective action.**(40 CFR 63.1506 (m)(1))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to each emission unit subject to an emission limit in (lb/ton) or (gr/ton) of feed/charge over the same operating cycle or time period used in the performance test. **(40 CFR 60.1510(e))**

V. TESTING/SAMPLING

1. Verification and quantification of dioxin/furan emission rates from SVBHRVRB#1, SVBHRVRB#2, and SVBHROTARY, by testing at owner's expense, in accordance with Department requirements, will be required within 180 days of the issuance of this permit. If verification is required, no less than 30 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. **(40 CFR 63.1511, 40 CFR 63.1512)**
2. Performance testing shall be performed to establish the following monitoring and operating parameter values for each emission unit that ensure compliance with the applicable emission limit or standard: the maximum production rate, maximum fluxing rate, minimum lime injection rate, and maximum fabric filter inlet temperature. **(40 CFR 63.1511)**

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. The permittee shall initiate corrective action if a process parameter or add-on air pollution control device operating parameter deviates from the value or range incorporated in the OM&M plan. **(40 CFR 63.1506(p))**
3. The permittee shall prepare and implement for FG-MACTRRR a written operation, maintenance, and monitoring (OM&M) plan. Within 90 days of startup, the permittee shall submit the OM&M plan to the AQD district supervisor upon startup of FG-MACTRRR. The plan shall be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63 Subpart RRR and is otherwise consistent with the requirements of subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the department, unless and until the plan is revised in accordance with the following procedures. If the department determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of 40 CFR 63 Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan. If the permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the permittee submits a description of the changes and a revised plan incorporating them to the AQD district supervisor. Each plan shall 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 40 CFR§ 63.1505.
 - 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 CFR 63 subpart A.
 - e. Procedures for monitoring process and control device parameters, and the procedure to be used for determining feed/charge (or throughput) weight if a measurement device is not used.
 - f. 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 40 CFR 63.1510(b)(1), 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.

g. 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.

(40 CFR 63.1510(b))

4. The permittee shall 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. **(40 CFR 63.1510(d))**
5. The permittee shall measure and record the total weight of feed/charge to, or the aluminum production from, each emission unit, on an emission unit-by-emission unit basis. The permittee shall comply with the following:
 - a. The accuracy of the weight measurement device or procedure must be ± 1 percent of the weight being measured.
 - b. The permittee 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.

(40 CFR 60.1510(e))

VII. REPORTING

1. The permittee shall submit all initial notifications as specified in 40 CFR 63.1515(a)(1) through (7). **(40 CFR 63.1515(a))**
2. The permittee shall submit a notification of compliance status report within 90 days after conducting the initial performance test required by 40 CFR 63.1511(b), or within 90 days after the compliance date established by 40 CFR 63.1501(b) if no initial performance test is required. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include the information specified in paragraphs 40 CFR 63.1515(a)(1) through (10). A complete notification of compliance status must include the information specified in 40 CFR 63.1515(b)(1) through (10). **(40 CFR 63.1515(b))**
3. The permittee shall develop 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 must include all information specified in 40 CFR 63.1516(a)(1) and (2). **(40 CFR 63.1516(a))**
4. The permittee shall submit semiannual reports according to the requirements in 40 CFR 63.10(e)(3). Except, the permittee 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 CFR 63.10(e)(3)(v). When no deviations of parameters have occurred, the permittee must submit a report stating that no excess emissions occurred during the reporting period. A report must be submitted if the conditions specified in 40 CFR 63.1516(b)(1)(i) through (vii) occur. Each report must include the certifications as specified in 40 CFR 63.1516(b)(2)(i) through (iv). The permittee shall also include 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. **(40 CFR 63.1516(b))**
6. As required by 40 CFR 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by 40 CFR 63 subparts A and RRR.
 - a. The permittee shall 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 permittee may retain records on microfilm, electronic storage media, computer disks, magnetic tape, or microfiche; and

- c. The permittee may report required information on paper or on a labeled electronic storage media using commonly available and EPA-compatible computer software.
- In addition to the general records required by 40 CFR 63.10(b), the permittee shall maintain the following records:
- d. Records of annual inspections of emission capture/collection and closed vent systems.
 - e. 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 processing unit emission plan (if applicable).

(40 CFR 63.1517)

VIII. STACK/VENT RESTRICTIONS

N/A

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart RRR for Secondary Aluminum Production by the initial compliance date. **(40 CFR Part 63, Subparts A and RRR)**

The following conditions apply Source-Wide to: FGFACILITY

DESCRIPTION: All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment

POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(3)
2. Aggregate HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(3)

II. MATERIAL LIMITS

1. The total charge of materials to the sidewells of FGRV1 and FGRV2 combined, excluding molten metal, shall not exceed 54,000 tons per year. **(R 336.1331, R 336.1225)**
2. The permittee shall burn only pipeline quality sweet natural gas as fuel in EUHOLDING, FGRV1, FGRV2, and FGROTARY. **(R 336.1205, R 336.1224, R 336.1225)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate FGRV1, FGRV2, or FGROTARY, unless the following approved plans have been implemented and are maintained:
 - a. System Startup, Shutdown, and Malfunction Plan
 - b. Operation, Maintenance, and Monitoring (OM&M) Plan
 - c. Scrap Inspection Plan

If the Air Quality Division determines that revisions to either plan are necessary, the permittee must promptly make all necessary revisions and resubmit the revised plan(s). If the permittee determines that other revisions of either plan are necessary, changes to the plan(s) may be made upon approval by the District Supervisor, Air Quality Division. **(R 336.1911, R 336.1702)**
2. Upon written approval of the District Supervisor, Air Quality Division, the permittee may redefine the following established operating parameters: minimum lime injection rate, and average fabric filter inlet temperature. Approval will require, at a minimum, that the permittee shall conduct a stack test at owner's expense, in accordance with Department requirements, to verify compliance with the PM, PM 10, PM 2.5, hydrogen chloride, hydrogen fluoride, and dioxin/furan emission rates from the flexible group. Verification of emission rates and operating parameters shall include the submittal of a complete report of the test results. No less than 30 days prior to testing, a complete stack testing plan must be submitted to the Air Quality Division. The final plan must be approved by the Air Quality Division prior to testing. **(R 336.2001, R 336.2003 and R 336.2204, R 336.1205(3), R 336.1331, R 336.1224)**

IV. DESIGN/EQUIPMENT PARAMETERS

N/A

V. TESTING/SAMPLING

N/A

VI. MONITORING/RECORDKEEPING

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

1. All required calculations shall be completed in a format and using procedures acceptable to the AQD District Supervisor and made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1201)**
2. The permittee shall keep the following information for FGFACILITY:
 - a. Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
 - b. Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.
(R 336.1205(3))
3. A report of the scrap charging weights and categories, as recorded per Section 4 "Charge Monitoring and Record Keeping" of the Scrap Inspection Plan, shall be submitted in an acceptable format to Air Quality Division, within 30 days following the end of each calendar quarter. **(R 336.1901)**

VII. REPORTING

1. In a format and using procedures acceptable to the AQD District Supervisor, the permittee shall submit on a semi-annual basis, a summary of monthly records, calculations, and parameters monitored. **(R 336.1201)**

VIII. STACK/VENT RESTRICTIONS

N/A

IX. OTHER REQUIREMENTS

N/A

Appendix A

**Continuous Opacity Monitoring System (COMS) Requirements
(This appendix applies to FGRV2)**

1. The permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required COMS.
2. The permittee shall submit two copies of a complete test plan for the COMS to the AQD for approval.
3. The permittee shall complete the installation and testing of the COMS.
4. The permittee shall submit to the AQD two copies of the final report demonstrating the COMS complies with the requirements of Performance Specification (PS) 1.
5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
6. The COMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 1 of Appendix B, 40 CFR Part 60.
7. The permittee shall perform an annual audit of the COMS using the procedures set forth in USEPA Publication 450/4-92-010, "Performance Audits Procedures for Opacity Monitors", or a procedure acceptable to AQD. Within 30 days after the completion of the audit, the results of the annual audit shall be submitted to the AQD.
8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to Air Quality Division, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
 - a. A report of each exceedance above the opacity limit specified in GC 11a. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - b. A report of all periods of COMS downtime and corrective action.
 - c. A report of the total operating time of the FGRV2 during the reporting period.
 - d. If no exceedances or COMS downtime occurred during the reporting period, the permittee shall report that fact.

All monitoring data is shall be kept on file for a period of at least five years and made available to the AQD upon request.

Appendix B

PREVENTATIVE MAINTENANCE PROGRAM FOR THE FABRIC FILTER DUST COLLECTOR

The Preventative Maintenance Program for the Fabric Filter Dust Collector is for the purpose of keeping the dust collector in good operating condition, and thereby, maintaining the rated capture efficiency of the dust collector for the control of particulate matter. ALL REFERENCES TO VISIBLE EMISSIONS IN THIS DOCUMENT, PARTICULARLY IN SEC. 5, REFER SPECIFICALLY TO VISIBLE EMISSIONS CAUSED BY A DUST (PARTICULATE) EMISSION.

1. FABRIC FILTER DUST COLLECTOR OPERATING PRESSURE DROP

- a. The pressure drop across the fabric filter dust collector shall be continuously measured and the minimum pressure drop shall not be less than the minimum level defined in the facility OM&M plan, except when a large number of filter bags have been replaced or other reason acceptable to the AQD.
- b. The pressure drop across the fabric filter dust collector shall be recorded at least once per day and kept available at the facility. These data shall be recorded in a log of daily operations.

2. FABRIC FILTER DUST COLLECTOR /PLANT ALARM SYSTEM

The fabric filter dust collector shall be equipped with a high temperature sensor and alarm system. The alarm system shall be designed to set off an alarm when the high temperature set-point has been violated, and, to begin a sequential shut-down of the plant if the situation is not resolved within a very short period of time after the alarm sounds.

3. HANDLING AND STORAGE OF FABRIC FILTER DUST

Accumulated fabric filter dust (particulate) shall be stored and/or be disposed of in a manner which minimizes the introduction of the air contaminants to the outer air.

4. PIPING AND SEALS MAINTENANCE

Piping and seals shall be replaced as needed.

5. VISIBLE EMISSIONS AND ACTIONS TO BE TAKEN

In the event visible emissions, which appear to exceed the standard allowed in General Condition No. 11 of this Permit to Install, are observed at the discharge point of the stack, the following actions shall be taken:

If no certified visible emissions reader can be on-site within 60 minutes of observing the visible emissions to verify the emission density, operations shall be ceased immediately and the cause of the visible emissions determined and corrected prior to operating the plant again.

REMINDER: If the visible emissions continue for more than 2 hours, in excess of an emission standard, an excess emissions report must be made to MDEQ.

6. BLACK LIGHT INSPECTIONS

A black light test shall be conducted at least once per year. Black light inspection equipment and materials shall be available for use at the facility and used as needed.

Appendix B - Continued

7. INVENTORY OF FILTER BAGS

An inventory of fabric filter bags shall be maintained by the facility permittee so that filter bags will be available to this site within four hours of requesting the filter bags. In addition, a minimum of 15 filter bags shall be kept on-site at all times. An inventory of other replacement parts for the fabric filter dust collector shall be maintained at all times.

8. FABRIC FILTER DUST COLLECTOR INSPECTION RECORD

A record of the following shall be maintained by the permittee of the facility:

- Visual inspections of the interior components of the fabric filter dust collector, including date, time, and findings;
- Black light inspections, including date, time, and findings;
- Number of filter bags installed as a result of each inspection to replace filter bags already in use in the fabric filter dust collector, including date, time, location, and whether the replacement filter bag was brand new or a cleaned, previously used filter bag;
- An explanation (i.e., a description of the damage found) for each filter bag removed from the fabric filter dust collector and confirmation that another filter bag was installed to replace it;
- Each observation of visible emissions at the stack discharge point and description of response to the observed visible emission, including date and time of visible emission occurrence and results of EPA Method 9 observation, if any. Any such visible emission shall be recorded in a log of daily operations and made available upon request to the AQD.
- All significant maintenance activities performed on the fabric filter dust collector.

Appendix C

SUMMARY OF APPLICABLE REQUIREMENTS FROM 40 CFR 63 SUBPART RRR

This appendix is meant to serve as guidance on 40 CFR Subpart RRR, and does not necessarily contain all of the applicable requirements from the regulation.

Table 2 to Subpart RRR of Part 63—Summary of Applicable Operating Requirements

Affected source/ emission unit	Monitor type/ operation/ process	Operating requirements
All affected sources and emission units with add-on air pollution control device	Emission capture and collection system	Design and install in accordance with Industrial Ventilation: A Handbook of Recommended Practice; operate in accordance with OM&M plan.
All affected sources and emission units subject to production-based (lb/ton of feed) emission limits	Charge/feed weight or Production weight	Operate a device that records the weight of each charge; Operate in accordance with OM&M plan.
Group 1 furnace, group 2 furnace	Labeling	Identification, operating parameter ranges and operating requirements posted at affected sources and emission units
Group 1 furnace with lime-injected fabric filter	Bag leak detector (FGRV1 & FGROTARY) or	Initiate corrective action within 1-hr of alarm; operate such that alarm does not sound more than 5% of operating time in 6-month period; complete corrective action in accordance with the OM&M plan.
	COM (FGRV2)	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more; complete corrective action in accordance with the OM&M plan.
	Fabric filter inlet temperature	Maintain average fabric filter inlet temperature for each 3-hour period at or below average temperature during the performance test +14 °C (+25 °F).
	Reactive flux injection rate	Maintain reactive flux injection rate (kg/Mg) (lb/ton) at or below rate used during the performance test for each furnace cycle.
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established at performance test for continuous injection systems.
	Maintain molten aluminum level	Operate sidewall furnaces such that the level of molten metal is above the top of the passage between sidewall and hearth during reactive flux injection, unless the hearth is also controlled.
	Fluxing in sidewall furnace hearth	Add reactive flux only to the sidewall of the furnace unless the hearth is also controlled.
Clean (group 2) furnace	Charge and flux materials	Use only clean charge. Use no reactive flux.

Appendix C - Continued

Table 3 to Subpart RRR of Part 63—Summary of Applicable Monitoring Requirements

Affected source/Emission unit	Monitor type/ Operation/ Process	Monitoring requirements
All affected sources and emission units with add-on air pollution control device	Emission capture and collection system	Annual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIH standards.
All affected sources and emission units subject to production-based (lb/ton of feed/charge) emission limits ^a	Feed/charge weight	Record weight of each feed/charge, weight measurement device or other procedure accuracy of $\pm 1\%$ ^b ; calibrate according to manufacturer's specifications, or at least once every 6 months.
Group 1 & 2 furnaces	Labeling	Check monthly to confirm that labels are intact and legible.
Group 1 furnace with lime-injected fabric filter	Bag leak detector (FGRV1 & FGROTARY) or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" ^c ; record output voltage from bag leak detector.
	COM (FGRV2)	Design and install in accordance with PS-1; collect data in accordance with subpart A of 40 part CFR 63; determine and record 6-minute block averages.
	Lime injection rate	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 hours to verify that lime is free-flowing; record results of each inspection. If blockage occurs, inspect every 4 hours for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period. ^d
	Reactive flux injection rate	Weight measurement device accuracy of $\pm 1\%$ ^b ; calibrate every 3 months; record weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test; or Alternative flux injection rate determination procedure per § 63.1510(j)(5).
	Fabric filter inlet temperature	Continuous measurement device to meet specifications in § 63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hour block averages.
	Maintain molten aluminum level in sidewall furnace	Maintain aluminum level operating log; certify every 6 months.
Clean (group 2) furnace	Charge and flux materials	Record charge and flux materials; certify every 6 months for clean charge and no reactive flux.

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

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

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

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