Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
300 Sower Boulevard, 2nd Floor
Frankfort, Kentucky 40601
(502) 564-3999

Draft

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**Real Alloy Recycling, LLC**
Mailing Address:	**805 Gardener Lane, Morgantown, Kentucky 42261**
Source Name:	**Real Alloy Recycling, LLC**
Mailing Address:	**805 Gardener Lane Morgantown, Kentucky 42261**
Source Location:	**Same as Above**
Permit:	**V-19-026 R2**
Agency Interest:	**11316**
Activity:	**APE20240002**
Review Type:	**Title V, Construction / Operating**
Source ID:	**21-031-00033**
Regional Office:	**Bowling Green Regional Office 2642 Russellville Road Bowling Green, KY 42101 (270) 746-7475**
County:	**Butler**
Application Complete Date:	**August 16, 2019**
Issuance Date:	**October 14, 2021**
Revision Date:	
Expiration Date:	**October 14, 2026**

For Michael J. Kennedy, P.E.
Director
Division for Air Quality

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Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action
V-19-026	**Renewal**	**APE20190001 APE20190002**	**8/16/2019**	**10/14/2021**	**Renewal Permit**
V-19-026 R1	**Significant Revision**	**APE20210005 APE20220003**	**12/14/2021 11/8/2022**	**3/16/2023**	**Replacement of Rotary Furnace EU04 with EU18. Addition of EU19 and EU20, Preheater and Charge Car on rails as IAs**
V-19-026 R2	**Significant Revision**	**APE20240001**	**5/02/2024**		**Addition of EUs 21, 22, 23. Removal of EU18 and reinstatement of EU04, Modification to EUs 04 and 13, Removal of EU 19**

SECTION A – PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Energy and Environment Cabinet (Cabinet) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit was issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emission Unit 02 (EU02) Delacquering Furnace

Description: Shredded can coatings and siding paint are removed in a natural gas-fired delacquering furnace. This unit is classified as a scrap dryer/delacquering kiln/decoating kiln under 40 CFR 63, Subpart RRR.

Maximum Capacity:	11.5 ton/hr delacquered (cleaned) scrap
Maximum Firing Rate:	18 MMBtu/hr
Control Devices:	Lime-injected baghouse filter (shared with EU03) Afterburner
Construction Commenced:	May 13, 1998, Afterburner added in 2010

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations
401 KAR 63:002, Section 2(4)(ccc) 40 C.F.R. 63.1500 to 63.1519, Tables 1 to 3, and Appendix A (Subpart RRR), *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*

PRECLUDED REGULATION:
401 KAR 51:017, Prevention of significant deterioration of air quality

1. **Operating Limitations:**
   a. The permittee shall not exceed 276 tons of aluminum processed per rolling 24-hour period. [To preclude 401 KAR 51:017]

      Compliance Demonstration Method:
      Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements.**

   b. The associated control device(s) shall be operated at all times when the delacquering furnace is operating. [To preclude 401 KAR 51:017]

      Compliance Demonstration Method:
      The permittee shall report any time the unit is operated without the lime-injected baghouse and afterburner in operation. The permittee must calculate the excess emissions that occurred during an outage and report the deviation in accordance with 401 KAR 50:055. Refer to **5. Specific Recordkeeping Requirements**. Refer to **SECTION E**.

   c. The permittee must operate all new and existing affected sources and control equipment according to the requirements in 40 CFR 63.1506. [40 CFR 63.1506(a)(1)]

   d. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1506(a)(5)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e. The permittee must provide and maintain easily visible labels posted at each scrap dryer/delacquering kiln/decoating kiln that identifies the applicable emission limits and means of compliance, including: [40 CFR 63.1506(b)]
   i. The type of affected source or emission unit (e.g. scrap dryer/delacquering kiln/decoating kiln). [40 CFR 63.1506(b)(1)]
   ii. 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)(2)]
   iii. The afterburner operating temperature and design residence time for a scrap dryer/delacquering kiln/decoating kiln. [40 CFR 63.1506(b)(3)]

f. For each affected source or emission unit equipped with an add-on air pollution control device, the permittee must: [40 CFR 63.1506(c)]
   i. Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, refer to 40 CFR 63.14); [40 CFR 63.1506(c)(1)]
   ii. 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 [40 CFR 63.1506(c)(2)]
   iii. Operate each capture/collection system according to the procedures and requirements in the OM&M plan. [40 CFR 63.1506(c)(3)]

g. The permittee of each affected source or emission unit subject to an emission limit in kg/Mg (lb/tn) or µg/Mg (gr/ton) of feed/charge must: [40 CFR 63.1506(d)]
   i. Except as provided in 40 CFR 63.1506(d)(3), 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 [40 CFR 63.1506(d)(1)]
   ii. Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan. [40 CFR 63.1506(d)(2)]
   iii. The permittee may choose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit. [40 CFR 63.1506(d)(3)]

h. The permittee must: [40 CFR 63.1506(g)]
   i. For each afterburner, [40 CFR 63.1506(g)(1)]
      1) Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test. [40 CFR 63.1506(g)(1)(i)]
      2) Operate each afterburner in accordance with the OM&M plan. [40 CFR 63.1506(g)(1)(ii)]
   ii. If a bag leak detection system is used to meet the fabric filter monitoring requirements in 40 CFR 63.1510, [40 CFR 63.1506(g)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete any necessary corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(g)(2)(i)]
2) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the 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(g)(2)(ii)]

iii. If a continuous opacity monitoring system is used to meet the monitoring requirements in 40 CFR 63.1510, initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(g)(3)]

iv. Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F). [40 CFR 63.1506(g)(4)]

v. For a continuous injection device, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test. [40 CFR 63.1506(g)(5)]

i. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]

j. The permittee shall prepare and implement for each decoating kiln, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (a)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]
   i. 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. [40 CFR 63.1510(b)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]
iii. 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)]
iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
    1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
    2) 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. [40 CFR 63.1510(b)(4)(ii)]
v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]
vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
    1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]
    2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]
vii. 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)]

Compliance Demonstration Method:
Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

2. Emission Limitations:

a. The permittee must comply at all times with each applicable limit in 40 CFR 63.1505, including periods of startup and shutdown. Table 1 to 40 CFR 63, Subpart RRR summarizes the emission standards for each type of source. [40 CFR 63.1505(a)]

b. The permittee shall not discharge or cause to be discharged to the atmosphere emissions in excess of: [40 CFR 63.1505(d)(1)]
    i. 0.03 kg of THC, as propane, per Mg (0.06 lbs of THC, as propane, per ton) of feed/charge; [40 CFR 63.1505(d)(1)(i)]
    ii. 0.04 kg of PM per Mg (0.08 lbs per ton) of feed/charge; [40 CFR 63.1505(d)(1)(ii)]
    iii. 0.25 µg of D/F TEQ per Mg (3.5×10^{-6} gr of D/F TEQ per ton) of feed/charge; [40 CFR 63.1505(d)(1)(iii)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iv. 0.40 kg of HCl per Mg (0.80 lbs per ton) of feed/charge. [40 CFR 63.1505(d)(1)(iv)]

c. The permittee must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option. [40 CFR 63.1505(d)(2)]

d. The permittee may choose to comply with the emission limits as specified in 40 CFR 63.1505(e) as an alternative to the limits in 40 CFR 63.1505(d) if the scrap dryer/delacquering kiln is equipped with an afterburner having a design residence time of at least 1 second and the afterburner is operated at a temperature of at least 760ºC (1400ºF) at all times. [40 CFR 63.1505(e)]
   i. The permittee must not discharge or cause to be discharged to the atmosphere emissions in excess of: [40 CFR 63.1505(e)(1)]
      1) 0.10 kg of THC, as propane, per Mg (0.20 lb of THC, as propane, per ton) of feed/charge; [40 CFR 63.1505(e)(1)(i)]
      2) 0.15 kg of PM per Mg (0.30 lb per ton) of feed/charge; [40 CFR 63.1505(e)(1)(ii)]
      3) 5.0 µg of D/F TEQ per Mg (7.0×10^{-5} gr of D/F TEQ per ton) of feed/charge; and [40 CFR 63.1505(e)(1)(iii)]
      4) 0.75 kg of HCl per Mg (1.50 lb per ton) of feed/charge. [40 CFR 63.1505(e)(1)(iv)]
   ii. The permittee must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option. [40 CFR 63.1505(e)(2)]

Compliance Demonstration Method:

A. *THC emission limits.* Use Eq. 6 to determine compliance with an emission limit for THC: [40 CFR 63.1513(a)]

$$E = \frac{C \times MW \times Q \times K_1 \times K_2}{M_v \times P \times 10^6} \qquad (Eq.\ 6)$$

Where,

E = Emission rate of measured pollutant, kg/Mg (lb/ton) of feed;
C = Measured volume fraction of pollutant, ppmv;
MW = Molecular weight of measured pollutant, g/g-mole (lb/lb-mole): THC (as propane) = 44.11;
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
K_1 = Conversion factor, 1 kg/1,000 g (1 lb/lb);
K_2 = Conversion factor, 1,000 L/m^3 (1 ft^3/ft^3);
M_v = Molar volume, 24.45 L/g-mole (385.3 ft^3/lb-mole); and
P = Production rate, Mg/hr (ton/hr).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. *PM and HCl emission limits*. Use Eq.7 to determine compliance with an emission limit for PM and HCl: [40 CFR 63.1513(b)(1)]

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

Where:
E = Emission rate of PM or HCl, kg/Mg (lb/ton) of feed;
C = Concentration of PM or HCl, g/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
K_1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
P = Production rate, Mg/hr (ton/hr).

C. *D/F emission limits.* Use Equation 7A to determine compliance with emission limits for D/F: [40 CFR 63.1513(b)(2)]

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

Where:
E = Emission rate of D/F, µg/Mg (gr/ton) of feed;
C = Concentration of D/F, µg/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr); and
P = Production rate, Mg/hr (ton/hr).

D. *Periods of startup and shutdown*: For a new or existing affected source, or a new or existing emission unit subject to an emissions limit in 40 CFR 63.1505(b) through (j) expressed in units of pounds per ton of feed/charge, or µg TEQ or ng TEQ per Mg of feed/charge, demonstrate compliance during periods of startup and shutdown in accordance 40 CFR 63.1513(f)(1) or determine the emissions per unit of feed/charge during periods of startup and shutdown in accordance with 40 CFR 63.1513(f)(2). [40 CFR 63.1513(f)]

I. For periods of startup and shutdown, records establishing a feed/charge rate of zero, a flux rate of zero, and that the affected source or emission unit was either heated with electricity, propane or natural gas as the sole sources of heat or was not heated, may be used to demonstrate compliance with the emission limit, or [40 CFR 63.1513(f)(1)]

II. For periods of startup and shutdown, divide the measured emissions in lb/hr or µg/hr or ng/hr by the feed/charge rate in tons/hr or Mg/hr from the most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data are available. [40 CFR 63.1513(f)(2)]

E. Refer to **3. Testing Requirements, 4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements** and **6. Specific Reporting Requirements**.

e. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method:
Compliance is assumed when meeting the requirements of 40 CFR 63, Subpart RRR in **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, **6. Specific Reporting Requirements**, and **7. Specific Control Equipment Requirements.**

f. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]
   i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr
   ii. For process weight rates up to 30.00 tons/hr: $E=3.59P^{0.62}$
   Where:
   E = the allowable PM emissions rate (lbs/hr)
   P = the process weight rate (tons/hr)

Compliance Demonstration Method:
Compliance is assumed when complying with the PM emission standard under 40 CFR 63, Subpart RRR.

3. Testing Requirements:

a. Prior to conducting any performance test required by 40 CFR 63, Subpart RRR, the permittee must prepare a site-specific test plan which satisfies all of the rule requirements, and must obtain approval of the plan pursuant to the procedures set forth in 40 CFR 63.7. Performance tests shall be conducted under such conditions as the Administrator specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1511(a)]

b. The permittee must conduct each performance test in accordance with the requirements and procedures set forth in 40 CFR 63.7(c). [40 CFR 63.1511(b)]
   i. The performance tests must be conducted under representative conditions expected to produce the highest level of HAP emissions expressed in the units of the emission standards for the HAP (considering the extent of feed/charge contamination, reactive flux addition rate and feed/charge rate). If a single test condition is not expected to produce the highest level of emissions for all HAP, testing under two or more sets of conditions (for example high contamination at low feed/charge rate, and low contamination at high feed/charge rate) may be required. Any subsequent performance tests for the purposes of establishing new or revised parametric limits shall be allowed upon pre-approval from the Division. These new parametric settings shall be used to demonstrate compliance for the period being tested. [40 CFR 63.1511(b)(1)]
   ii. 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. [40 CFR 63.1511(b)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. 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. [40 CFR 63.1511(b)(4)]
iv. Initial compliance with an applicable emission limit or standard is demonstrated if the average of 3 runs conducted during the performance test is less than or equal to the applicable emission limit or standard. [40 CFR 63.1511(b)(5)]
v. Apply 40 CFR 63.1511(b)(1) through (5) for each pollutant separately if a different production rate or charge material would apply and thereby result in a higher expected emissions rate for that pollutant. [40 CFR 63.1511(b)(6)]
vi. The permittee may not conduct performance tests during periods of malfunction. [40 CFR 63.1511(b)(7)]

c. The permittee must use the following methods in Appendix A to 40 CFR Part 60 to determine compliance with the applicable emission limits or standards: [40 CFR 63.1511(c)]
i. Method 1 for sample and velocity traverses. [40 CFR 63.1511(c)(1)]
ii. Method 2 for velocity and volumetric flow rate. [40 CFR 63.1511(c)(2)]
iii. Method 3 for gas analysis. [40 CFR 63.1511(c)(3)]
iv. Method 4 for moisture content of the stack gas. [40 CFR 63.1511(c)(4)]
v. Method 5 for the concentration of PM. [40 CFR 63.1511(c)(5)]
vi. Method 9 for visible emission observations. [40 CFR 63.1511(c)(9)]
vii. Method 23 for the concentration of D/F. [40 CFR 63.1511(c)(7)]
viii. Method 25A for the concentration of THC, as propane. [40 CFR 63.1511(c)(8)]
ix. Method 26A for the concentration of HCl. Method 26 may also be used, except at sources where entrained water droplets are present in the emission stream. Where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the permittee must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system. [40 CFR 63.1511(c)(9)]

d. The permittee may use an alternative test method approved by the Administrator. [40 CFR 63.1511(d)(3)]

e. The permittee must conduct a performance test every 5 years following the initial performance test. [40 CFR 63.1511(e)]

f. The permittee must 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 must use the appropriate procedures in 40 CFR 63.1511 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 Division: [40 CFR 63.1511(g)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

i. The complete emission test report(s) used as the basis of the parameter(s) is submitted. [40 CFR 63.1511(g)(1)]
ii. The same test methods and procedures as required by 40 CFR 63, Subpart RRR were used in the test. [40 CFR 63.1511(g)(2)]
iii. 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. [40 CFR 63.1511(g)(3)]
iv. All process and control equipment operating parameters required to be monitored were monitored as required in 40 CFR 63, Subpart RRR and documented in the test report. [40 CFR 63.1511(g)(4)]
v. If the permittee wants to conduct a new performance test and establish different operating parameter values, they must submit a revised site specific test plan and receive approval in accordance with 40 CFR 63.1511(a). In addition, if the permittee wants to use existing data in addition to the results of the new performance test to establish operating parameter values, they must meet the requirements of 40 CFR 63.1511(g)(1) through (g)(4). [40 CFR 63.1511(g)(5)]

g. With the prior approval of the Division, a permittee may do combined performance testing of two or more individual affected sources or emission units which are not included in a single existing SAPU or new SAPU, but whose emissions are manifolded to a single control device. Any such performance testing of commonly-ducted units must satisfy the following basic requirements: [40 CFR 63.1511(i)]
   i. All testing must be designed to verify that each affected source or emission unit individually satisfies all emission requirements applicable to that affected source or emission unit; [40 CFR 63.1511(i)(1)]
   ii. All emissions of pollutants subject to a standard must be tested at the outlet from each individual affected source or emission unit while operating under the highest load or capacity reasonably expected to occur, and prior to the point that the emissions are manifolded together with emissions from other affected sources or emission units; [40 CFR 63.1511(i)(2)]
   iii. The combined emissions from all affected sources and emission units which are manifolded to a single emission control device must be tested at the outlet of the emission control device; [40 CFR 63.1511(i)(3)]
   iv. All tests at the outlet of the emission control device must be conducted with all affected sources and emission units whose emissions are manifolded to the control device operating simultaneously under the highest load or capacity reasonably expected to occur; and [40 CFR 63.1511(i)(4)]
   v. For purposes of demonstrating compliance of a commonly-ducted unit with any emission limit for a particular type of pollutant, the emissions of that pollutant by the individual unit shall be presumed to be controlled by the same percentage as total emissions of that pollutant from all commonly-ducted units are controlled at the outlet of the emission control device. [40 CFR 63.1511(i)(5)]

h. The permittee must conduct performance tests to measure emissions of THC, D/F, HCl, and PM at the outlet of the control device. [40 CFR 63.1512(c)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

i. If the scrap dryer/delacquering kiln/decoating kiln is subject to the alternative emission limits in 40 CFR 63.1505(e), the average afterburner operating temperature in each 3-hour block period must be maintained at or above 760 °C (1400 °F) for the test. [40 CFR 63.1512(c)(1)]
ii. The permittee of a scrap dryer/delacquering kiln/decoating kiln subject to the alternative limits in 40 CFR 63.1505(e) must submit a written certification in the notification of compliance status report containing the information required by 40 CFR 63.1515(b)(7). [40 CFR 63.1512(c)(2)]

i. During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the permittee of an affected source or emission unit, subject to an emission limit in a kg/Mg (lb/ton) of feed/charge format, must measure (or otherwise determine) and record the total weight of feed/charge to the affected source or emission unit for each of the three test runs and calculate and record the total weight. A permittee that chooses to demonstrate compliance on the basis of the aluminum production weight must measure the weight of aluminum produced by the emission unit or affected source instead of the feed/charge weight. [40 CFR 63.1512(k)]

j. The permittee of an affected source or emission unit using a continuous opacity monitoring system must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in appendix B to 40 CFR part 60. Following the performance evaluation, the permittee must measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(l)]

k. These requirements apply to the permittee of an affected source using an afterburner to comply with the requirements of 40 CFR 63, Subpart RRR: [40 CFR 63.1512(m)]
   i. Prior to the initial performance test, the permittee must conduct a performance evaluation for the temperature-monitoring device according to the requirements of 40 CFR 63.8. [40 CFR 63.1512(m)(1)]
   ii. The permittee must use these procedures to establish an operating parameter value or range for the afterburner operating temperature. [40 CFR 63.1512(m)(2)]
      1) Continuously measure and record the operating temperature of each afterburner every 15 minutes during the THC and D/F performance tests; [40 CFR 63.1512(m)(2)(i)]
      2) Determine and record the 15-minute block average temperatures for the 3 test runs; and [40 CFR 63.1512(m)(2)(ii)]
      3) Determine and record the 3-hour block average temperature measurements for the 3 test runs. [40 CFR 63.1512(m)(2)(iii)]

l. The permittee of a scrap dryer/delacquering kiln/decoating kiln using a lime-injected fabric filter must use these procedures to establish an operating parameter value or range for the inlet gas temperature. [40 CFR 63.1512(n)]
   i. Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests. [40 CFR 63.1512(n)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. Determine and record the 15-minute block average temperatures for the 3 test runs; and [40 CFR 63.1512(n)(2)]
iii. Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs. [40 CFR 63.1512(n)(3)]

m. The permittee of an affected source or emission unit using a lime-injected fabric filter system must use these procedures during the HCl and D/F tests to establish an operating parameter value for the feeder setting for each operating cycle or time period used in the performance test. [40 CFR 63.1512(p)]
   i. For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and [40 CFR 63.1512(p)(1)]
   ii. 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. [40 CFR 63.1512(p)(2)]

n. To convert D/F measurements to TEQ units, the permittee must use the procedures and equations in Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update (EPA–625/3–89–016), incorporated by reference. Refer to 40 CFR 63.14 [40 CFR 63.1513(d)]

o. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

a. The permittee must monitor all control equipment and processes according to the requirements in 40 CFR 63.1510. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to 40 CFR 63, Subpart RRR. [40 CFR 63.1510(a)]

b. The permittee shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan. Refer to **1. Operating Limitations (j)** and **6. Specific Reporting Requirements (a)**, for OM&M plan requirements. [40 CFR 63.1510(b)]

c. The permittee must inspect the labels for each scrap dryer/delacquering kiln/decoating kiln 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. [40 CFR 63.1510(c)]

d. The permittee shall: [40 CFR 63.1510(d)]
   i. Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and [40 CFR 63.1510(d)(1)]
   ii. Inspect the 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)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. Meet the requirements in **SECTION E**.

e. The permittee must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. As an alternative to a measurement device, the permittee may use a procedure acceptable to the Division to determine the total weight of feed/charge or aluminum production to the affected source or emission unit. [40 CFR 63.1510(e)]
   i. The accuracy of the weight measurement device or procedure must be ±1 percent of the weight being measured. The permittee may apply to the Division 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 permittee provides assurance through data and information that the affected source will meet the relevant emission standard. [40 CFR 63.1510(e)(1)]
   ii. 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 63.1510(e)(2)]

f. The permittee shall monitor the daily (24-hour rolling) aluminum processed. [401 KAR 52:020, Section 10]

g. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

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 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
   i. The permittee must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63.1517(a)(1)]
   ii. The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and [40 CFR 63.1517(a)(2)]
   iii. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]

b. In addition to the general records required by 40 CFR 63.10(b), the permittee must maintain records of: [40 CFR 63.1517(b)]
   i. For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter: [40 CFR 63.1517(b)(1)]
      1) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

completed, and a brief description of the cause of the alarm and the corrective action(s) taken. [40 CFR 63.1517(b)(1)(i)]

2) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.1517(b)(1)(ii)]

ii. For each affected source with emissions controlled by an afterburner: [40 CFR 63.1517(b)(2)]

1) Records of 15-minute block average afterburner operating temperature, including any period when the average temperature in any 3-hour block period falls below the compliant operating parameter value with a brief explanation of the cause of the excursion and the corrective action taken; and[40 CFR 63.1517(b)(2)(i)]

2) Records of annual afterburner inspections. [40 CFR 63.1517(b)(2)(ii)]

iii. For each scrap dryer/delacquering kiln/decoating kiln, subject to D/F and HCl emission standards with emissions controlled by a lime-injected fabric filter, records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14 °C (+25 °F), with a brief explanation of the cause of the excursion and the corrective action taken. [40 CFR 63.1517(b)(3)]

iv. For each affected source and emission unit with emissions controlled by a lime-injected fabric filter: [40 CFR 63.1517(b)(4)]

1) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken; [40 CFR 63.1517(b)(4)(i)]

2) If lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken. If a lime feeder has been repaired or replaced, this action must be documented along with records of the new feeder calibration and the feed mechanism set points necessary to maintain the lb/hr feed rate operating limit. These records must be maintained on site and available upon request. [40 CFR 63.1517(b)(4)(ii)]

v. For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]

vi. 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. [40 CFR 63.1517(b)(7)]

vii. Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements. [40 CFR 63.1517(b)(13)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

viii. Records of annual inspections of emission capture/collection and closed vent systems or, if the alternative to the annual flow rate measurements is used, records of differential pressure; fan RPM or fan motor amperage; static pressure measurements; or duct centerline velocity using a hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple, as appropriate. [40 CFR 63.1517(b)(14)]

ix. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]

x. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including the OM&M plan. [40 CFR 63.1517(b)(16)(ii)]

xi. For any failure to meet an applicable standard, the permittee shall maintain the following records; [40 CFR 63.1517(b)(18)]

1) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken. [40 CFR 63.1517(b)(18)(i)]
2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.1517(b)(18)(ii)]

xii. For each period of startup or shutdown for which the permittee chooses to demonstrate compliance for an affected source, the permittee shall comply with 40 CFR 63.1517(b)(19)(i) or (ii), below. [40 CFR 63.1517(b)(19)]

1) To demonstrate compliance based on a feed/charge rate of zero, a flux rate of zero and the use of electricity, propane or natural gas as the sole sources of heating or the lack of heating, the permittee shall submit a semiannual report in accordance with 40 CFR 63.1516(b)(2)(vii) or maintain the following records: [40 CFR 63.1517(b)(19)(i)]
   A. The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(i)(A)]
   B. The quantities of feed/charge and flux introduced during each startup and shutdown; and [40 CFR 63.1517(b)(19)(i)(B)]
   C. The types of fuel used to heat the unit, or that no fuel was used, during startup and shutdown; or [40 CFR 63.1517(b)(19)(i)(C)]
2) To demonstrate compliance based on performance tests, the permittee shall maintain the following records: [40 CFR 63.1517(b)(19)(ii)]
   A. The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(ii)(A)]
   B. The measured emissions in lb/hr or µg/hr or ng/hr; [40 CFR 63.1517(b)(19)(ii)(B)]
   C. The measured feed/charge rate in tons/hr or Mg/hr from the most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data is available; and[40 CFR 63.1517(b)(19)(ii)(C)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. An explanation to support that such conditions are considered representative startup and shutdown operations. [40 CFR 63.1517(b)(19)(ii)(D)]

c. The permittee shall maintain records of the daily (24-hour rolling) aluminum processed. [401 KAR 52:020, Section 10]

d. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

a. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]
   i. If the Division 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 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.
   ii. 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 Division.

b. If the permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR 63.1510(j)(5) and 40 CFR 63.1510(v), the permittee may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in 40 CFR 63.1510(w)(1) through (6). [40 CFR 63.1510(w)]

c. As required by 40 CFR 63.9(e) and (f), the permittee must provide notification of the anticipated date for conducting performance tests and visible emission observations. The permittee must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place. [40 CFR 63.1515(a)(6)]

d. As required by 40 CFR 63.9(g), the permittee must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems. [40 CFR 63.1515(a)(7)]

e. 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. [40 CFR 63.1516(b)]
   i. A report must be submitted if any of these conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(i)]
2) The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(ii)]
3) 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). [40 CFR 63.1516(b)(1)(iv)]
4) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
5) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit. [40 CFR 63.1516(b)(1)(vii)]

ii. Each report must include the following certification, as applicable: [40 CFR 63.1516(b)(2)]
1) For each affected source choosing to demonstrate compliance during periods of startup and shutdown in accordance with 40 CFR 63.1513(f)(1): "During each startup and shutdown, no flux and no feed/charge were added to the emission unit, and electricity, propane or natural gas were used as the sole source of heat or the emission unit was not heated." [40 CFR 63.1516(b)(2)(vii)]

iii. The permittee must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested. [40 CFR 63.1516(b)(3)]
1) Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.2) required by 40 CFR 63, Subpart RRR, the permittee must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either 40 CFR 63.1516(b)(3)(i)(A) or (B). [40 CFR 63.1516(b)(3)(i)]

iv. A malfunction report that is required under 40 CFR 63.1516(d) shall be submitted simultaneously with the semiannual excess emissions/summary report required by 40 CFR 63.1516(b). [40 CFR 63.1516(b)(4)]

f. For the purpose of annual certifications of compliance required by 40 CFR Part 70, the permittee must certify continuing compliance based upon, but not limited to, the following conditions: [40 CFR 63.1516(c)]
i. Any period of excess emissions, as defined in 40 CFR 63.1516(b)(1), that occurred during the year were reported as required by 40 CFR 63, Subpart RRR; and [40 CFR 63.1516(c)(1)]
ii. All monitoring, recordkeeping, and reporting requirements were met during the year. [40 CFR 63.1516(c)(2)]

g. If there was a malfunction during the reporting period, the permittee must submit a report that includes the emission unit ID, monitor ID, pollutant or parameter monitored,

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken for each malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must include a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions, including, but not limited to, product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The report must also include a description of actions taken by a permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.1506(a)(5). [40 CFR 63.1516(d)]

h. All reports required by 40 CFR 63, Subpart RRR not subject to the requirements in 40 CFR 63.1516(b) must be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the permittee of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to 40 CFR 63.1516(b) in paper format. [40 CFR 63.1516(e)]

i. Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Requirements:

a. The permittee of an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR must install, calibrate, maintain, and continuously operate a bag leak detection system as required in 40 CFR 63.1510(f)(1) or a continuous opacity monitoring system as required in 40 CFR 63.1510(f)(2). [40 CFR 63.1510(f)]

i. These requirements apply to the permittee of a new or existing affected source or existing emission unit using a bag leak detection system: [40 CFR 63.1510(f)(1)]

1) The permittee must install and operate a bag leak detection system for each exhaust stack of a fabric filter. [40 CFR 63.1510(f)(1)(i)]
2) Each bag leak detection system must be installed, calibrated, operated, and maintained according to manufacturer's operating instructions. [40 CFR 63.1510(f)(1)(ii)]
3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.1510(f)(1)(iii)]
4) The bag leak detection system sensor must provide output of relative or absolute PM loadings. [40 CFR 63.1510(f)(1)(iv)]
5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor. [40 CFR 63.1510(f)(1)(v)]
6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. [40 CFR 63.1510(f)(1)(vi)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter. [40 CFR 63.1510(f)(1)(vii)]
8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.1510(f)(1)(viii)]
9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.1510(f)(1)(ix)]
10) Following initial adjustment of the system, the permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. [40 CFR 63.1510(f)(1)(x)]

ii. These requirements apply to the permittee of a new or existing affected source or an existing emission unit using a continuous opacity monitoring system. [40 CFR 63.1510(f)(2)]
1) The permittee must install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack. [40 CFR 63.1510(f)(2)(i)]
2) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in appendix B to 40 CFR part 60. [40 CFR 63.1510(f)(2)(ii)]

b. These requirements apply to the permittee of an affected source using an afterburner to comply with the requirements of 40 CFR 63, Subpart RRR: [40 CFR 63.1510(g)]
i. The permittee must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in subpart A of part 63. [40 CFR 63.1510(g)(1)]
ii. The temperature monitoring device must meet each of these performance and equipment specifications: [40 CFR 63.1510(g)(2)]
1) The temperature monitoring device must be installed at the exit of the combustion zone of each afterburner. [40 CFR 63.1510(g)(2)(i)]
2) The monitoring system must record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period. [40 CFR 63.1510(g)(2)(ii)]
3) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(m). [40 CFR 63.1510(g)(2)(iii)]
4) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple–potentiometer system or alternate reference, subject to approval by the Administrator. [40 CFR 63.1510(g)(2)(iv)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. The permittee must conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include: [40 CFR 63.1510(g)(3)]
   1) Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor; [40 CFR 63.1510(g)(3)(i)]
   2) Inspection for proper adjustment of combustion air; [40 CFR 63.1510(g)(3)(ii)]
   3) Inspection of internal structures (e.g., baffles) to ensure structural integrity; [40 CFR 63.1510(g)(3)(iii)]
   4) Inspection of dampers, fans, and blowers for proper operation; [40 CFR 63.1510(g)(3)(iv)]
   5) Inspection for proper sealing; [40 CFR 63.1510(g)(3)(v)]
   6) Inspection of motors for proper operation; [40 CFR 63.1510(g)(3)(vi)]
   7) Inspection of combustion chamber refractory lining and clean and replace lining as necessary; [40 CFR 63.1510(g)(3)(vii)]
   8) Inspection of afterburner shell for corrosion and/or hot spots; [40 CFR 63.1510(g)(3)(viii)]
   9) Documentation, for the burn cycle that follows the inspection, that the afterburner is operating properly and any necessary adjustments have been made; and [40 CFR 63.1510(g)(3)(ix)]
   10) Verification that the equipment is maintained in good operating condition. [40 CFR 63.1510(g)(3)(x)]
   11) Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan. [40 CFR 63.1510(g)(3)(xi)]

c. These requirements apply to the permittee of a scrap dryer/delacquering kiln/decoating kiln using a lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(h)]
   i. 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 subpart A of part 63. [40 CFR 63.1510(h)(1)]
   ii. The temperature monitoring device must meet each of these performance and equipment specifications: [40 CFR 63.1510(h)(2)]
      1) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period. [40 CFR 63.1510(h)(2)(i)]
      2) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(n). [40 CFR 63.1510(h)(2)(ii)]
      3) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator. [40 CFR 63.1510(h)(2)(iii)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. These requirements apply to the permittee of an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(i)]
   i. The permittee of a continuous lime injection system must verify that lime is always free-flowing by either: [40 CFR 63.1510(i)(1)]
      1) Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the permittee must 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 [40 CFR 63.1510(i)(1)(i)]
      2) Subject to the approval of the Division, 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 must promptly initiate and complete corrective action, or [40 CFR 63.1510(i)(1)(ii)]
      3) Subject to the approval of the Division, 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 must promptly initiate and complete corrective action. [40 CFR 63.1510(i)(1)(iii)]
   ii. The permittee of a continuous lime injection system must record the lime feeder setting once each day of operation. [40 CFR 63.1510(i)(2)]
   iii. A permittee who intermittently adds lime to a lime-injected fabric filter must obtain approval from the Division for a lime addition monitoring procedure. The Division will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis. [40 CFR 63.1510(i)(3)]
   iv. At least once per month, verify that the lime injection rate in pounds per hour (lb/hr) is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. If the monthly check of the lime injection rate is below the 90 percent, the permittee must repair or adjust the lime injection system to restore normal operation within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to demonstrate that the lime injection rate is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. In the event that a lime feeder is repaired or replaced, the feeder must be calibrated, and the feed rate must be restored to the lb/hr feed rate operating limit established during the most recent performance test within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to complete the repair or replacement and establishing a new setting. The repair or replacement, and the establishment of the new feeder setting(s) must be documented in accordance with the recordkeeping requirements of 40 CFR 63.1517. [40 CFR 63.1510(i)(4)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e. The control device associated with the emission unit shall be properly maintained, used in conjunction with operation of the associated emission unit, and operated consistent with the manufacturer's specifications. [401 KAR 52:020, Section 10]

f. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 03 (EU03) Reverberatory Furnace

Description: The natural gas-fired reverberatory furnace with sidewell melting is used to continuously melt aluminum scrap. This unit is classified as a group 1 furnace melting other than clean charge using reactive flux under 40 CFR 63, Subpart RRR. This group 1 furnace was permanently re-designated as a new emission unit pursuant to 40 CFR 63.1505(k)(6) on November 11, 2011.

Maximum Capacity:	12.5 ton/hr molten Al
Maximum Firing Rate:	38 MMBtu/hr
Control Device:	Lime-Injected Baghouse (shared with EU02)
Construction Commenced:	May 13, 1998

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations

401 KAR 63:002, Section 2(4)(ccc) 40 C.F.R. 63.1500 to 63.1519, Tables 1 to 3, and Appendix A (Subpart RRR), *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*

1. **Operating Limitations:**
   a. The permittee must operate all new and existing affected sources and control equipment according to the requirements in 40 CFR 63.1506. [40 CFR 63.1506(a)(1)]

   b. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1506(a)(5)]

   c. The permittee must provide and maintain easily visible labels posted at each group 1 furnace that identifies the applicable emission limits and means of compliance, including: [40 CFR 63.1506(b)]
      i. The type of affected source or emission unit (*e.g.*, group 1 furnace). [40 CFR 63.1506(b)(1)]
      ii. 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)(2)]

   d. For each affected source or emission unit equipped with an add-on air pollution control device, the permittee must: [40 CFR 63.1506(c)]
      i. Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

contained in the ACGIH Guidelines (incorporated by reference, see 40 CFR 63.14); [40 CFR 63.1506(c)(1)]

ii. 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 [40 CFR 63.1506(c)(2)]

iii. Operate each capture/collection system according to the procedures and requirements in the OM&M plan. [40 CFR 63.1506(c)(3)]

e. The permittee of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge must: [40 CFR 63.1506(d)]

i. Except as provided in 40 CFR 63.1506(d)(3), 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 [40 CFR 63.1506(d)(1))]

ii. Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan. [40 CFR 63.1506(d)(2)]

iii. The permittee may choose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit, provided that: [40 CFR 63.1506(d)(3)]

1) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and [40 CFR 63.1506(d)(3)(i)]

2) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight. [40 CFR 63.1506(d)(3)(ii)]

f. The permittee of a group 1 furnace with emissions controlled by a lime-injected fabric filter must: [40 CFR 63.1506(m)]

i. If a bag leak detection system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must: 40 CFR 63.1506(m)(1)]

1) Initiate corrective action within 1 hour of a bag leak detection system alarm. [40 CFR 63.1506(m)(1)(i)]

2) Complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(m)(1)(ii)]

3) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the 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)(iii)]

ii. If a continuous opacity monitoring system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must: [40 CFR 63.1506(m)(2)]

1) Initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity; and [40 CFR 63.1506(m)(2)(i)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2) Complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(m)(2)(ii)]

iii. Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F). [40 CFR 63.1506(m)(3)]

iv. For a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test. [40 CFR 63.1506(m)(4)]

v. Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test. [40 CFR 63.1506(m)(5)]

vi. Operate each sidewell furnace such that: [40 CFR 63.1506(m)(6)]

1) The level of molten metal remains above the top of the passage between the sidewell and hearth during reactive flux injection, unless emissions from both the sidewell and the hearth are included in demonstrating compliance with all applicable emission limits. [40 CFR 63.1506(m)(6)(i)]

2) Reactive flux is added only in the sidewell, unless emissions from both the sidewell and the hearth are included in demonstrating compliance with all applicable emission limits. [40 CFR 63.1506(m)(6)(ii)]

g. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]

h. The permittee shall prepare and implement for each group 1 furnace, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (a)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]

i. 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. [40 CFR 63.1510(b)(1)]

ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. 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)]

iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
   1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
   2) 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. [40 CFR 63.1510(b)(4)(ii)]

v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]

vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
   1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]
   2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]

vii. 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)]

Compliance Demonstration Method:
Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

i. Prior to changing furnace classifications to those not already authorized in **SECTION B**, the permittee shall submit a permit application to incorporate the applicable standards from 40 CFR 63, Subpart RRR. [401 KAR 52:020, Section 7]

2. Emission Limitations:

a. The permittee must comply at all times with each applicable limit in 40 CFR 63.1505, including periods of startup and shutdown. Table 1 to 40 CFR 63, Subpart RRR summarizes the emission standards for each type of source. [40 CFR 63.1505(a)]

b. The permittee of a group 1 furnace must use the limits in 40 CFR 63.1505(i) to determine the emission standards for a SAPU: [40 CFR 63.1505(i)]
   i. 0.20 kg of PM per Mg (0.40 lb of PM per ton) of feed/charge; [40 CFR 63.1505(i)(1)]
   ii. 15 µg of D/F TEQ per Mg (2.1×10^{-4} gr of D/F TEQ per ton) of feed/charge; and [40 CFR 63.1505(i)(3)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. 0.20 kg of HCl per Mg (0.40 lb of HCl per ton) of feed/charge or, if the furnace is equipped with an add-on air pollution control device, 10 percent of the uncontrolled HCl emissions, by weight. [40 CFR 63.1505(i)(4)]

iv. The permittee must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option. [40 CFR 63.1505(i)(5)]

v. The permittee may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of feed/charge. [40 CFR 63.1505(i)(6)]

vi. The permittee of a sidewell group 1 furnace that conducts reactive fluxing (except for cover flux) in the hearth, or that conducts reactive fluxing in the sidewell at times when the level of molten metal falls below the top of the passage between the sidewell and the hearth, must comply with the emission limits of 40 CFR 63.1505(i)(1) through (4) on the basis of the combined emissions from the sidewell and the hearth. [40 CFR 63.1505(i)(7)]

Compliance Demonstration Method:

A. *PM and HCl emission limits.* Use Equation 7 to determine compliance with an emission limit for PM or HCl. [40 CFR 63.1513(b)(1)]

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

Where:
E = Emission rate of PM or HCl, kg/Mg (lb/ton) of feed;
C = Concentration of PM or HCl, g/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
K_1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
P = Production rate, Mg/hr (ton/hr).

B. *D/F emission limits*. Use Equation 7A to determine compliance with an emission limit for D/F. [40 CFR 63.1513(b)(2)]

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

Where:
E = Emission rate of D/F, µg/Mg (gr/ton) of feed;
C = Concentration of D/F, µg/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr); and
P = Production rate, Mg/hr (ton/hr).

C. *HCl percent reduction standard*. Use Equation 8 to determine compliance with an HCl percent reduction standard: [40 CFR 63.1513(c)]

$$\%R = \frac{L_i - L_o}{L_i} \times 100 \qquad (Eq.\ 8)$$

Where:
%R = Percent reduction of the control device;
L_i = Inlet loading of pollutant, kg/Mg (lb/ton); and
L_o= Outlet loading of pollutant, kg/Mg (lb/ton)

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. *Periods of startup and shutdown*: For a new or existing affected source, or a new or existing emission unit subject to an emissions limit in 40 CFR 63.1505(b) through (j) expressed in units of pounds per ton of feed/charge, or µg TEQ or ng TEQ per Mg of feed/charge, demonstrate compliance during periods of startup and shutdown in accordance 40 CFR 63.1513(f)(1) or determine the emissions per unit of feed/charge during periods of startup and shutdown in accordance with 40 CFR 63.1513(f)(2). [40 CFR 63.1513(f)]

I. For periods of startup and shutdown, records establishing a feed/charge rate of zero, a flux rate of zero, and that the affected source or emission unit was either heated with electricity, propane or natural gas as the sole sources of heat or was not heated, may be used to demonstrate compliance with the emission limit, or [40 CFR 63.1513(f)(1)]

II. For periods of startup and shutdown, divide the measured emissions in lb/hr or µg/hr or ng/hr by the feed/charge rate in tons/hr or Mg/hr from the most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data are available. [40 CFR 63.1513(f)(2)]

E. Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements** and **6. Specific Reporting. Requirements**.

c. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

Compliance Demonstration Method:
Compliance is assumed when meeting the requirements of 40 CFR 63, Subpart RRR in **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements** for the baghouse stack. For the flue gas stack, refer to **4. Specific Monitoring Requirements (h)** and **5. Specific Recordkeeping Requirements (c)**.

d. For emissions from a control device or stack, no person shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]

i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr

ii. For process weight rates up to 30 tons/hr: $E=3.59P^{0.62}$

Where:
E = the allowable PM emissions rate (lbs/hr)
P = the process weight rate (tons/hr)

Compliance Demonstration Method:
Compliance is assumed when complying with the PM emission standard under 40 CFR 63, Subpart RRR.

e. Refer to **SECTION D** for SAPU calculations.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method:
If the permittee cannot or chooses not to demonstrate compliance with the limits in **2. Emission Limitations (a)** on an individual basis, the permittee shall comply with the SAPU emission limits calculated using the equations in 40 CFR 63.1505(k) referenced in **SECTION D.3**. Initial compliance with the SAPU emission limits during the performance test shall be demonstrated by using the equations in 40 CFR 63.1513(e) referenced in the **Compliance Demonstration Method** for **SECTION D.3**. Continuous compliance with the calculated SAPU emission limits shall be demonstrated by calculating and recording the 3-day rolling 24-hour average emissions for the SAPU using the equations in 40 CFR 63.1510(t).

3. Testing Requirements:

a. Prior to conducting any performance test required by 40 CFR 63, Subpart RRR, the permittee must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in 40 CFR 63.7. Performance tests shall be conducted under such conditions as the Administrator specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1511(a)]

b. The permittee must conduct each performance test in accordance with the requirements and procedures set forth in 40 CFR 63.7(c). [40 CFR 63.1511(b)]
   i. The performance tests must be conducted under representative conditions expected to produce the highest level of HAP emissions expressed in the units of the emission standards for the HAP (considering the extent of feed/charge contamination, reactive flux addition rate and feed/charge rate). If a single test condition is not expected to produce the highest level of emissions for all HAP, testing under two or more sets of conditions (for example high contamination at low feed/charge rate, and low contamination at high feed/charge rate) may be required. Any subsequent performance tests for the purposes of establishing new or revised parametric limits shall be allowed upon pre-approval from the Division. These new parametric settings shall be used to demonstrate compliance for the period being tested. [40 CFR 63.1511(b)(1)]
   ii. 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. [40 CFR 63.1511(b)(2)]
   iii. 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. [40 CFR 63.1511(b)(4)]
   iv. 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. [40 CFR 63.1511(b)(5)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

v. Apply 40 CFR 63.1511(b)(1) through (5) for each pollutant separately if a different production rate or charge material would apply and thereby result in a higher expected emissions rate for that pollutant. [40 CFR 63.1511(b)(6)]
vi. The permittee may not conduct performance tests during periods of malfunction. [40 CFR 63.1511(b)(7)]

c. The permittee must use the following methods in Appendix A to 40 CFR Part 60 to determine compliance with the applicable emission limits or standards: [40 CFR 63.1511(c)]
   i. Method 1 for sample and velocity traverses. [40 CFR 63.1511(c)(1)]
   ii. Method 2 for velocity and volumetric flow rate. [40 CFR 63.1511(c)(2)]
   iii. Method 3 for gas analysis. [40 CFR 63.1511(c)(3)]
   iv. Method 4 for moisture content of the stack gas. [40 CFR 63.1511(c)(4)]
   v. Method 5 for the concentration of PM. [40 CFR 63.1511(c)(5)]
   vi. Method 9 for visible emission observations. [40 CFR 63.1511(c)(6)]
   vii. Method 23 for the concentration of D/F. [40 CFR 63.1511(c)(7)]
   viii. Method 26A for the concentration of HCl. Method 26 may also be used, except at sources where entrained water droplets are present in the emission stream. Where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the permittee must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system. [40 CFR 63.1511(c)(9)]

d. The permittee may use an alternative test methods as provided in 40 CFR 63.1511(d)(1) through (3). [40 CFR 63.1511(d)]

e. The permittee must conduct a performance test every 5 years following the initial performance test. [40 CFR 63.1511(e)]

f. The permittee must 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 must use the appropriate procedures in 40 CFR 63.1511 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 Division. [40 CFR 63.1511(g)]
   i. The complete emission test report(s) used as the basis of the parameter(s) is submitted. [40 CFR 63.1511(g)(1)]
   ii. The same test methods and procedures as required by 40 CFR 63, Subpart RRR were used in the test. [40 CFR 63.1511(g)(2)]
   iii. 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. [40 CFR 63.1511(g)(3)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iv. All process and control equipment operating parameters required to be monitored were monitored as required in 40 CFR 63, Subpart RRR and documented in the test report. [40 CFR 63.1511(g)(4)]
v. If the permittee wants to conduct a new performance test and establish different operating parameter values, they must submit a revised site specific test plan and receive approval in accordance with 40 CFR 63.1511(a). In addition to the results of the new performance test to establish operating parameter values, they must meet the requirements of 40 CFR 63.1511(g)(1) through (g)(4). [40 CFR 63.1511(g)(5)]

g. With the prior approval of the Division, a permittee may do combined performance testing of two or more individual affected sources or emission units which are not included in a single existing SAPU or new SAPU, but whose emissions are manifolded to a single control device. Any such performance testing of commonly-ducted units must satisfy the following basic requirements: [40 CFR 63.1511(i)]
   i. All testing must be designed to verify that each affected source or emission unit individually satisfies all emission requirements applicable to that affected source or emission unit; [40 CFR 63.1511(i)(1)]
   ii. All emissions of pollutants subject to a standard must be tested at the outlet from each individual affected source or emission unit while operating under the highest load or capacity reasonably expected to occur, and prior to the point that the emissions are manifolded together with emissions from other affected sources or emission units; [40 CFR 63.1511(i)(2)]
   iii. The combined emissions from all affected sources and emission units which are manifolded to a single emission control device must be tested at the outlet of the emission control device; [40 CFR 63.1511(i)(3)]
   iv. All tests at the outlet of the emission control device must be conducted with all affected sources and emission units whose emissions are manifolded to the control device operating simultaneously under the highest load or capacity reasonably expected to occur; and [40 CFR 63.1511(i)(4)]
   v. For purposes of demonstrating compliance of a commonly-ducted unit with any emission limit for a particular type of pollutant, the emissions of that pollutant by the individual unit shall be presumed to be controlled by the same percentage as total emissions of that pollutant from all commonly-ducted units are controlled at the outlet of the emission control device. [40 CFR 63.1511(i)(5)]

h. The permittee must conduct performance tests to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard). [40 CFR 63.1512(d)(1)]

i. The permittee may choose to determine the rate of reactive flux addition to the group 1 furnace and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the group 1 furnace is emitted. Under these circumstances, the permittee is not required to conduct an emission test for HCl. [40 CFR 63.1512(d)(3)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

j. The permittee of a sidewell group 1 furnace that conducts reactive fluxing (except for cover flux) in the hearth, or that conducts reactive fluxing in the sidewell at times when the level of molten metal falls below the top of the passage between the sidewell and the hearth, must conduct the performance tests required 40 CFR 63.1512(d)(1) to measure emissions from both the sidewell and the hearth. [40 CFR 63.1512(d)(4)]

k. *Secondary aluminum processing unit*. The permittee must conduct performance tests as described in 40 CFR 63.1512(j)(1) through (3). The results of the performance tests are used to establish emission rates in lb/ton of feed/charge for PM, HCl and HF and µg TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in 40 CFR 63.1510(t). A performance test is required for: [40 CFR 63.1512(j)]
   i. Each group 1 furnace that processes scrap other than clean charge to measure emissions of PM and D/F and either: [40 CFR 63.1512(j)(2)]
      1) Emissions of HF and HCl (for determining the emission limit); or [40 CFR 63.1512(j)(2)(i)]
      2) The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard). [40 CFR 63.1512(j)(2)(ii)]

l. During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the permittee of an affected source or emission unit, subject to an emission limit in a kg/Mg (lb/ton) of feed/charge format, must measure (or otherwise determine) and record the total weight of feed/charge to the affected source or emission unit for each of the three test runs and calculate and record the total weight. A permittee that chooses to demonstrate compliance on the basis of the aluminum production weight must measure the weight of aluminum produced by the emission unit or affected source instead of the feed/charge weight. [40 CFR 63.1512(k)]

m. The permittee of an affected source or emission unit using a continuous opacity monitoring system must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in appendix B to 40 CFR part 60. Following the performance evaluation, the permittee must measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(l)]

n. The permittee of a group 1 furnace using a lime-injected fabric filter must use these procedures to establish an operating parameter value or range for the inlet gas temperature. [40 CFR 63.1512(n)]
   i. Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests; [40 CFR 63.1512(n)(1)]
   ii. Determine and record the 15-minute block average temperatures for the 3 test runs; and [40 CFR 63.1512(n)(2)]
   iii. Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs. [40 CFR 63.1512(n)(3)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

o. The permittee must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate: [40 CFR 63.1512(o)]
   i. Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the HCl and D/F tests, determine and record the 15-minute block average weights, and calculate and record the total weight of the gaseous or liquid reactive flux for the 3 test runs; [40 CFR 63.1512(o)(1)]
   ii. Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs; [40 CFR 63.1512(o)(2)]
   iii. 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: [40 CFR 63.1512(o)(3)]

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

   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;
   iv. 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 [40 CFR 63.1512(o)(4)]
   v. If a solid reactive flux other than magnesium chloride is used, the permittee must derive the appropriate proportion factor subject to approval by the Division. [40 CFR 63.1512(o)(5)]

p. The permittee of an affected source or emission unit using a lime-injected fabric filter system must use these procedures during the HCl and D/F tests to establish an operating parameter value for the feeder setting for each operating cycle or time period used in the performance test. [40 CFR 63.1512(p)]
   i. For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and [40 CFR 63.1512(p)(1)]
   ii. Record the feeder setting and lime injection rate for the 3 test runs. If the feed rate setting varies during the runs, determine and record the average feed rate and lime injection rate from the 3 runs. [40 CFR 63.1512(p)(2)]

q. To convert D/F measurements to TEQ units, the permittee must use the procedures and equations in Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update (EPA–625/3–89–016), incorporated by reference. Refer to 40 CFR 63.14 [40 CFR 63.1513(d)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

r. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

a. The permittee must monitor all control equipment and processes according to the requirements in 40 CFR 63.1510. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to 40 CFR 63, Subpart RRR. [40 CFR 63.1510(a)]

b. The permittee shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan. Refer to **1. Operating Limitations (h)** and **6. Specific Reporting Requirements (a)**, for OM&M plan requirements. [40 CFR 63.1510(b)]

c. The permittee must inspect the labels for each group 1 furnace 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. [40 CFR 63.1510(c)]

d. The permittee shall: [40 CFR 63.1510(d)]
   i. Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and [40 CFR 63.1510(d)(1)]
   ii. Inspect the 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)(2)]
   iii. Meet the requirements in **SECTION E**.

e. The permittee must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the permittee may use a procedure acceptable to the Division to determine the total weight of feed/charge or aluminum production to the affected source or emission unit. [40 CFR 63.1510(e)]
   i. The accuracy of the weight measurement device or procedure must be ±1 percent of the weight being measured. The permittee may apply to the Division 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 permittee provides assurance through data and information that the affected source will meet the relevant emission standard. [40 CFR 63.1510(e)(1)]
   ii. 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 63.1510(e)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

f. These requirements apply to the permittee of a group 1 furnace (with or without add-on air pollution control devices). The permittee must: [40 CFR 63.1510(j)]
   i. Install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to each affected source or emission unit. [40 CFR 63.1510(j)(1)]
      1) The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test. [40 CFR 63.1510(j)(1)(i)]
      2) The accuracy of the weight measurement device must be ±1 percent of the weight of the reactive component of the flux being measured. The permittee may apply to the Division for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of ±1 percent impracticable. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standards. [40 CFR 63.1510(j)(1)(ii)]
      3) 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 63.1510(j)(1)(iii)]
   ii. 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). [40 CFR 63.1510(j)(2)]
   iii. 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: [40 CFR 63.1510(j)(3)]
      1) Gaseous or liquid reactive flux other than chlorine; and [40 CFR 63.1510(j)(3)(i)]
      2) Solid reactive flux. [40 CFR 63.1510(j)(3)(ii)]
   iv. 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). For solid flux that is added intermittently, record the amount added for each operating cycle or time period used in the performance test using the procedures in 40 CFR 63.1512(o). [40 CFR 63.1510(j)(4)]
   v. The permittee of a group 1 furnace or in-line fluxer performing reactive fluxing may apply to the Administrator for approval of an alternative method for monitoring and recording the total reactive flux addition rate based on monitoring the weight or quantity of reactive flux per ton of feed/charge for each operating cycle or time period used in the performance test. 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. [40 CFR 63.1510(j)(5)]

g. These requirements apply to the permittee of a sidewell group 1 furnace using add-on air pollution control devices. The permittee must: [40 CFR 63.1510(n)]
   i. Record in an operating log for each tap of a sidewell furnace that the level of molten metal was above the top of the passage between the sidewell and hearth during

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

reactive flux injection, unless the furnace hearth was also equipped with an add-on control device. If visual inspection of the molten metal level is not possible, the molten metal level must be determined using physical measurement methods. [40 CFR 63.1510(n)(1)]

ii. 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). [40 CFR 63.1510(n)(2)]

h. For the Flue Gas Stack only, the permittee shall perform a qualitative visual observation of the opacity of emissions from the stack no less frequently than two times a day, while the affected facility is operating, during daylight hours, with at least one observation during the tapping process. If visible emissions from the stack are observed (not including condensed water in the plume), then the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

i. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly throughput in tons; and
   ii. The monthly natural gas usage in MMscf.

j. Refer to **SECTION D.3.** for SAPU requirements.

k. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

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 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
   i. The permittee must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63.1517(a)(1)]
   ii. The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and [40 CFR 63.1517(a)(2)]
   iii. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]

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) must maintain records of: [40 CFR 63.1517(b)]
   i. For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter: [40 CFR 63.1517(b)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken. [40 CFR 63.1517(b)(1)(i)]
2) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.1517(b)(1)(ii)]

ii. For each group 1 furnace, subject to D/F and HCl emission standards with emissions controlled by a lime-injected fabric filter, records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14 °C (+25 °F), with a brief explanation of the cause of the excursion and the corrective action taken. [40 CFR 63.1517(b)(3)]

iii. For each affected source and emission unit with emissions controlled by a lime-injected fabric filter: [40 CFR 63.1517(b)(4)]
1) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken; [40 CFR 63.1517(b)(4)(i)]
2) If lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken. If a lime feeder has been repaired or replaced, this action must be documented along with records of the new feeder calibration and the feed mechanism set points necessary to maintain the lb/hr feed rate operating limit. These records must be maintained on site and available upon request. [40 CFR 63.1517(b)(4)(ii)]

iv. For each group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer, records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken. [40 CFR 63.1517(b)(5)]

v. For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]

vi. 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. [40 CFR 63.1517(b)(7)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

vii. Operating logs for each group 1 sidewell furnace with add-on air pollution control devices documenting conformance with operating standards for maintaining the level of molten metal above the top of the passage between the sidewell and hearth during reactive flux injection and for adding reactive flux only to the sidewell or a furnace hearth equipped with a control device for PM, HCl, and D/F emissions. [40 CFR 63.1517(b)(10)]

viii. Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements. [40 CFR 63.1517(b)(13)]

ix. Records of annual inspections of emission capture/collection and closed vent systems or, if the alternative to the annual flow rate measurements is used, records of differential pressure; fan RPM or fan motor amperage; static pressure measurements; or duct centerline velocity using a hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple, as appropriate. [40 CFR 63.1517(b)(14)]

x. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]

xi. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including: [40 CFR 63.1517(b)(16)]
   1) OM&M plan; and [40 CFR 63.1517(b)(16)(ii)]
   2) Site-specific secondary aluminum processing unit emission plan (as applicable). [40 CFR 63.1517(b)(16)(iii)]

xii. For each secondary aluminum processing unit, records of total charge weight, or if the permittee 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. [40 CFR 63.1517(b)(17)]

xiii. For any failure to meet an applicable standard, the permittee shall maintain the following records: [40 CFR 63.1517(b)(18)]
   1) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken. [40 CFR 63.1517(b)(18)(i)]
   2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.1517(b)(18)(ii)]

xiv. For each period of startup or shutdown for which the permittee chooses to demonstrate compliance for an affected source, the permittee must comply with 40 CFR 63.1517(b)(19)(i) or (ii). [40 CFR 63.1517(b)(19)]
   1) To demonstrate compliance based on a feed/charge rate of zero, a flux rate of zero and the use of electricity, propane or natural gas as the sole sources of heating or the lack of heating, the permittee must submit a semiannual report in accordance with 40 CFR 63.1516(b)(2)(vii) or maintain the following records: [40 CFR 63.1517(b)(19)(i)]
      A. The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(i)(A)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. The quantities of feed/charge and flux introduced during each startup and shutdown; and [40 CFR 63.1517(b)(19)(i)(B)]
C. The types of fuel used to heat the unit, or that no fuel was used, during startup and shutdown; or [40 CFR 63.1517(b)(19)(i)(C)]

2) To demonstrate compliance based on performance tests, the permittee must maintain the following records: [40 CFR 63.1517(b)(19)(ii)]
A. The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(ii)(A)]
B. The measured emission in lb/hr or µg/hr or ng/hr; [40 CFR 63.1517(b)(19)(ii)(B)]
C. The measured feed/charge rate in tons/hr or Mg/hr from the most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data is available; and [40 CFR 63.1517(b)(19)(ii)(C)]
D. An explanation to support that such conditions are considered representative startup and shutdown operations. [40 CFR 63.1517(b)(19)(ii)(D)]

c. For the Flue Gas stack, the permittee shall retain records of the qualitative visual observations required by **4. Specific Monitoring Requirements (h)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions. [401 KAR 52:020, Section 10]

d. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
i. The monthly throughput in tons; and
ii. The monthly natural gas usage in MMscf.

e. Refer to **SECTION D.3.** for SAPU requirements.

f. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

a. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]
i. If the Division 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 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.
ii. 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 Division.

b. Within the OM&M plan prepared in accordance with 40 CFR 63.1510(b), the permittee shall include the following information: [40 CFR 63.1510(s)(1)]
i. The identification of each emission unit in the SAPU; [40 CFR 63.1510(s)(1)(i)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. The specific control technology or pollution prevention measure to be used for each emission unit in the SAPU and the date of its installation or application; [40 CFR 63.1510(s)(1)(ii)]
iii. The emission limit calculated for each SAPU and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit; [40 CFR 63.1510(s)(1)(iii)]
iv. Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of 40 CFR 63, Subpart RRR; and [40 CFR 63.1510(s)(1)(iv)]
v. The monitoring requirements applicable to each emission unit in a SAPU and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t). [40 CFR 63.1510(s)(1)(v)]

c. The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions: [40 CFR 63.1510(s)(2)]
   i. Any averaging among emissions of differing pollutants; [40 CFR 63.1510(s)(2)(i)]
   ii. The inclusion of any affected sources other than emission units in a secondary aluminum processing unit; [40 CFR 63.1510(s)(2)(ii)]
   iii. The inclusion of any emission unit while it is shutdown; or [40 CFR 63.1510(s)(2)(iii)]
   iv. The inclusion of any periods of startup or shutdown in emission calculations. [40 CFR 63.1510(s)(2)(iv)]

d. To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the permittee shall submit a request to the Division containing the information required by 40 CFR 63.1510(s)(1), above, and obtain approval of the Division prior to implementing any revisions. [40 CFR 63.1510(s)(3)]

e. Except as provided in 40 CFR 63.1510(u), the permittee shall calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F for each secondary aluminum processing unit (SAPU) on a daily basis. [40 CFR 63.1510(t)]

f. As an alternative to the procedures of 40 CFR 63.1510(t), the permittee may demonstrate, through performance tests, that each individual emission unit within the secondary aluminum production unit (SAPU) is in compliance with the applicable emission limits for the emission unit. [40 CFR 63.1510(u)]

g. If the permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR 63.1510(j)(5) and 40 CFR 63.1510(v), the permittee may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in 40 CFR 63.1510(w)(1) through (6). [40 CFR 63.1510(w)]

h. As required by 40 CFR 63.9(e) and (f), the permittee must provide notification of the anticipated date for conducting performance tests and visible emission observations. The

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

permittee must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place. [40 CFR 63.1515(a)(6)]

i. As required by 40 CFR 63.9(g), the permittee must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems. [40 CFR 63.1515(a)(7)]

j. The permittee must 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. [40 CFR 63.1516(b)]
   i. A report must be submitted if any of these conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]
      1) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(i)]
      2) The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(ii)]
      3) 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). [40 CFR 63.1516(b)(1)(iv)]
      4) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
      5) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit. [40 CFR 63.1516(b)(1)(vii)]
   ii. Each report must include each of these certifications, as applicable: [40 CFR 63.1516(b)(2)]
      1) For each sidewell group 1 furnace with add-on air pollution control devices: "Each furnace was operated such that the level of molten metal remained above the top of the passage between the sidewell and hearth during reactive fluxing, and reactive flux, except for cover flux, was added only to the sidewell or to a furnace hearth equipped with an add-on air pollution control device for PM, HCl, and D/F emissions during this reporting period." [40 CFR 63.1516(b)(2)(iii)]
      2) For each affected source choosing to demonstrate compliance during periods of startup and shutdown in accordance with 40 CFR 63.1513(f)(1): "During each startup and shutdown, no flux and no fee/charge were added to the emission unit, and electricity, propane or natural gas were used as the sole source of heat or the emission unit was not heated." [40 CFR 63.1516(b)(2)(vii)]
   iii. The permittee shall submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

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)(3)]

1) Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.2) required by 40 CFR 63, Subpart RRR, the permittee must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either 40 CFR 63.1516(b)(3)(i)(A) or (B). [40 CFR 63.1516(b)(3)(i)]

iv. A malfunction report that is required under 40 CFR 63.1516(d) shall be submitted simultaneously with the semiannual excess emissions/summary report required by 40 CFR 63.1516(b). [40 CFR 63.1516(b)(4)]

k. For the purpose of annual certifications of compliance required by 40 CFR Part 70, the permittee must certify continuing compliance based upon, but not limited to, the following conditions: [40 CFR 63.1516(c)]

i. Any period of excess emissions, as defined in 40 CFR 63.1516(b)(1), that occurred during the year were reported as required by 40 CFR 63, Subpart RRR; and [40 CFR 63.1516(c)(1)]

ii. All monitoring, recordkeeping, and reporting requirements were met during the year. [40 CFR 63.1516(c)(2)]

l. If there was a malfunction during the reporting period, the permittee must submit a report that includes the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken for each malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must include a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions, including, but not limited to, product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.1506(a)(5). [40 CFR 63.1516(d)]

m. All reports required by 40 CFR 63, Subpart RRR not subject to the requirements in 40 CFR 63.1516(b) must be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the permittee of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to 40 CFR 63.1516(b) in paper format. [40 CFR 63.1516(e)]

n. Refer to **SECTION F** for general reporting requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Requirements

a. The permittee of an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR must install, calibrate, maintain, and continuously operate a bag leak detection system as required in 40 CFR 63.1510(f)(1) or a continuous opacity monitoring system as required in 40 CFR 63.1510(f)(2). [40 CFR 63.1510(f)]

i. These requirements apply to the permittee of a new or existing affected source or existing emission unit using a bag leak detection system: [40 CFR 63.1510(f)(1)]

1) The permittee must install and operate a bag leak detection system for each exhaust stack of a fabric filter. [40 CFR 63.1510(f)(1)(i)]
2) Each bag leak detection system must be installed, calibrated, operated, and maintained according to manufacturer's operating instructions. [40 CFR 63.1510(f)(1)(ii)]
3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.1510(f)(1)(iii)]
4) The bag leak detection system sensor must provide output of relative or absolute PM loadings. [40 CFR 63.1510(f)(1)(iv)]
5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor. [40 CFR 63.1510(f)(1)(v)]
6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. [40 CFR 63.1510(f)(1)(vi)]
7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter. [40 CFR 63.1510(f)(1)(vii)]
8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.1510(f)(1)(viii)]
9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.1510(f)(1)(ix)]
10) Following initial adjustment of the system, the permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. [40 CFR 63.1510(f)(1)(x)]

ii. These requirements apply to the permittee of a new or existing affected source or an existing emission unit using a continuous opacity monitoring system. [40 CFR 63.1510(f)(2)]

1) The permittee must install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack. [40 CFR 63.1510(f)(2)(i)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in appendix B to 40 CFR part 60. [40 CFR 63.1510(f)(2)(ii)]

b. These requirements apply to the permittee of a group 1 furnace using a lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(h)]
   i. 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 subpart A of part 63. [40 CFR 63.1510(h)(1)]
   ii. The temperature monitoring device must meet each of these performance and equipment specifications: [40 CFR 63.1510(h)(2)]
      1) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period. [40 CFR 63.1510(h)(2)(i)]
      2) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(n). [40 CFR 63.1510(h)(2)(ii)]
      3) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator. [40 CFR 63.1510(h)(2)(iii)]

c. These requirements apply to the permittee of an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(i)]
   i. The permittee of a continuous lime injection system must verify that lime is always free-flowing by either: [40 CFR 63.1510(i)(1)]
      1) Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the permittee must 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 [40 CFR 63.1510(i)(1)(i)]
      2) Subject to the approval of the Division, 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 must promptly initiate and complete corrective action, or [40 CFR 63.1510(i)(1)(ii)]
      3) Subject to the approval of the Division, 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 must promptly initiate and complete corrective action. [40 CFR 63.1510(i)(1)(iii)]
   ii. The permittee of a continuous lime injection system must record the lime feeder setting once each day of operation. [40 CFR 63.1510(i)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. A permittee who intermittently adds lime to a lime-injected fabric filter must obtain approval from the Division for a lime addition monitoring procedure. The Division will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis. [40 CFR 63.1510(i)(3)]

iv. At least once per month, verify that the lime injection rate in pounds per hour (lb/hr) is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. If the monthly check of the lime injection rate is below the 90 percent, the permittee must repair or adjust the lime injection system to restore normal operation within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to demonstrate that the lime injection rate is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. In the event that a lime feeder is repaired or replaced, the feeder must be calibrated, and the feed rate must be restored to the lb/hr feed rate operating limit established during the most recent performance test within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to complete the repair or replacement and establishing a new setting. The repair or replacement, and the establishment of the new feeder setting(s) must be documented in accordance with the recordkeeping requirements of 40 CFR 63.1517. [40 CFR 63.1510(i)(4)]

d. The control device associated with the emission unit shall be properly maintained, used in conjunction with operation of the associated emission unit, and operated consistent with the manufacturer's specifications. [401 KAR 52:020, Section 10]

e. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 04 (EU04) Rotary Furnace #5

Description: The custom-built, natural gas-fired, rotary aluminum furnace melts scrap in batches. This unit is classified as an existing Group 1 furnace melting other than clean charge using reactive flux under 40 CFR 63, Subpart RRR.

Maximum Capacity:	100.8 tons of aluminum/day
Maximum Firing Rate:	16 MMBtu/hr
Control Device:	Lime-Injected Baghouse
Construction Commenced:	1990, Modified 2024.

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations

401 KAR 63:002, Section 2(4)(ccc) 40 C.F.R. 63.1500 to 63.1519, Tables 1 to 3, and Appendix A (Subpart RRR), *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*

1. **Operating Limitations:**
   a. The permittee must operate all new and existing affected sources and control equipment according to the requirements in 40 CFR 63.1500. [40 CFR 63.1506(a)(1)]

   b. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1506(a)(5)]

   c. The permittee must provide and maintain easily visible labels posted at each group 1 furnace that identifies the applicable emission limits and means of compliance, including: [40 CFR 63.1506(b)]
      i. The type of affected source or emission unit (*e.g.*, group 1 furnace). [40 CFR 63.1506(b)(1)]
      ii. 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)(2)]

   d. For each affected source or emission unit equipped with an add-on air pollution control device, the permittee must: [40 CFR 63.1506(c)]
      i. Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, see 40 CFR 63.14); [40 CFR 63.1506(c)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. 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 [40 CFR 63.1506(c)(2)]
iii. Operate each capture/collection system according to the procedures and requirements in the OM&M plan. [40 CFR 63.1506(c)(3)]

e. The permittee of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge must: [40 CFR 63.1506(d)]
   i. Except as provided in 40 CFR 63.1506(d)(3), 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 [40 CFR 63.1506(d)(1)]
   ii. Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan. [40 CFR 63.1506(d)(2)]
   iii. The permittee may choose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit, provided that: [40 CFR 63.1506(d)(3)]
      1) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and [40 CFR 63.1506(d)(3)(i)]
      2) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight. [40 CFR 63.1506(d)(3)(ii)]

f. The permittee of a group 1 furnace with emissions controlled by a lime-injected fabric filter must: [40 CFR 63.1506(m)]
   i. If a bag leak detection system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must: [40 CFR 63.1506(m)(1)]
      1) Initiate corrective action within 1 hour of a bag leak detection system alarm. [40 CFR 63.1506(m)(1)(i)]
      2) Complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(m)(1)(ii)]
      3) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the 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)(iii)]
   ii. If a continuous opacity monitoring system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must: [40 CFR 63.1506(m)(2)]
      1) Initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity; and [40 CFR 63.1506(m)(2)(i)]
      2) Complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(m)(2)(ii)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F). [40 CFR 63.1506(m)(3)]
iv. For a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test. [40 CFR 63.1506(m)(4)]
v. Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test. [40 CFR 63.1506(m)(5)]

g. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]

h. The permittee shall prepare and implement for each group 1 furnace, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (a)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]
i. 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. [40 CFR 63.1510(b)(1)]
ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]
iii. 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)]
iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2) 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. [40 CFR 63.1510(b)(4)(ii)]

v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]

vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]

1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]

2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]

vii. 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)]

i. With the prior approval of the Division, the permittee may redesignate any existing group 1 furnace at a secondary aluminum production facility as a new emission unit. Any emission unit so redesignated may thereafter be included in a new SAPU at that facility. Any such redesignation will be solely for the purpose of 40 CFR 63, Subpart RRR and will be irreversible. [40 CFR 63.1505(k)(6)]

Compliance Demonstration Method:
Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

j. Prior to changing furnace classifications to those not already authorized in **SECTION B**, the permittee shall submit a permit application to incorporate the applicable standards from 40 CFR 63, Subpart RRR. [401 KAR 52:020, Section 7]

2. Emission Limitations:

a. The permittee must comply at all times with each applicable limit in 40 CFR 63.1505, including periods of startup and shutdown. Table 1 to 40 CFR 63, Subpart RRR summarizes the emission standards for each type of source. [40 CFR 63.1505(a)]

b. The permittee shall not allow emissions to exceed the following limits: [40 CFR 63.1505(i)]

i. 0.20 kg of PM per Mg (0.40 lb of PM per ton) of feed/charge; [40 CFR 63.1505(i)(1)]

ii. 15 µg of D/F TEQ per Mg (2.1×10^{-4} gr of D/F TEQ per ton) of feed/charge; and [40 CFR 63.1505(i)(3)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. 0.20 kg of HCl per Mg (0.40 lb of HCl per ton) of feed/charge or, if the furnace is equipped with an add-on air pollution control device, 10 percent of the uncontrolled HCl emissions, by weight. [40 CFR 63.1505(i)(4)]

iv. The permittee shall not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option. [40 CFR 63.1505(i)(5)]

v. The permittee may apply the group 1 furnace limits on the basis of the aluminum production weight in the group 1 furnace, rather than on the basis of feed/charge. [40 CFR 63.1505(i)(6)]

Compliance Demonstration Method:

A. *PM and HCl emission limits.* Use Equation 7 to determine compliance with an emission limit for PM or HCl. [40 CFR 63.1513(b)(1)]

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

Where:
E = Emission rate of PM or HCl, kg/Mg (lb/ton) of feed;
C = Concentration of PM or HCl, g/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
K_1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
P = Production rate, Mg/hr (ton/hr).

B. *D/F emission limits*. Use Equation 7A to determine compliance with an emission limit for D/F. [40 CFR 63.1513(b)(2)]

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

Where:
E = Emission rate of D/F, µg/Mg (gr/ton) of feed;
C = Concentration of D/F, µg/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr); and
P = Production rate, Mg/hr (ton/hr).

C. *Periods of startup and shutdown*: For a new or existing affected source, or a new or existing emission unit subject to an emissions limit in 40 CFR 63.1505(b) through (j) expressed in units of pounds per ton of feed/charge, or µg TEQ or ng TEQ per Mg of feed/charge, demonstrate compliance during periods of startup and shutdown in accordance 40 CFR 63.1513(f)(1) or determine the emissions per unit of feed/charge during periods of startup and shutdown in accordance with 40 CFR 63.1513(f)(2). [40 CFR 63.1513(f)]

I. For periods of startup and shutdown, records establishing a feed/charge rate of zero, a flux rate of zero, and that the affected source or emission unit was either heated with electricity, propane or natural gas as the sole sources of heat or was not heated, may be used to demonstrate compliance with the emission limit, or [40 CFR 63.1513(f)(1)]

II. For periods of startup and shutdown, divide the measured emissions in lb/hr or µg/hr or ng/hr by the feed/charge rate in tons/hr or Mg/hr from the most recent

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data are available. [40 CFR 63.1513(f)(2)]

D. Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements** and **6. Specific Reporting. Requirements**.

c. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

Compliance Demonstration Method:
Compliance is assumed when meeting the requirements of 40 CFR 63, Subpart RRR in **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

d. For emissions from a control device or stack, no person shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]

i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr
ii. For process weight rates up to 30 tons/hr: $E=3.59P^{0.62}$
Where:
E = the allowable PM emissions rate (lbs/hr)
P = the process weight rate (tons/hr)

Compliance Demonstration Method:
Compliance is assumed when complying with the PM emission standard under 40 CFR 63, Subpart RRR.

3. Testing Requirements:

a. Prior to conducting any performance test required by 40 CFR 63, Subpart RRR, the permittee must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in 40 CFR 63.7. Performance tests shall be conducted under such conditions as the Administrator specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1511(a)]

b. The permittee must conduct each performance test in accordance with the requirements and procedures set forth in 40 CFR 63.7(c). [40 CFR 63.1511(b)]

i. The performance tests must be conducted under representative conditions expected to produce the highest level of HAP emissions expressed in the units of the emission standards for the HAP (considering the extent of feed/charge contamination, reactive flux addition rate and feed/charge rate). If a single test condition is not expected to produce the highest level of emissions for all HAP, testing under two or more sets of conditions (for example high contamination at low feed/charge rate, and low

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

contamination at high feed/charge rate) may be required. Any subsequent performance tests for the purposes of establishing new or revised parametric limits shall be allowed upon pre-approval from the Division. These new parametric settings shall be used to demonstrate compliance for the period being tested. [40 CFR 63.1511(b)(1)]

ii. 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. [40 CFR 63.1511(b)(2)]

iii. 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. [40 CFR 63.1511(b)(4)]

iv. 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. [40 CFR 63.1511(b)(5)]

v. Apply 40 CFR 63.1511(b)(1) through (5) for each pollutant separately if a different production rate or charge material would apply and thereby result in a higher expected emissions rate for that pollutant. [40 CFR 63.1511(b)(6)]

vi. The permittee may not conduct performance tests during periods of malfunction. [40 CFR 63.1511(b)(7)]

c. The permittee must use the following methods in Appendix A to 40 CFR Part 60 to determine compliance with the applicable emission limits or standards: [40 CFR 63.1511(c)]

i. Method 1 for sample and velocity traverses. [40 CFR 63.1511(c)(1)]

ii. Method 2 for velocity and volumetric flow rate. [40 CFR 63.1511(c)(2)]

iii. Method 3 for gas analysis. [40 CFR 63.1511(c)(3)]

iv. Method 4 for moisture content of the stack gas. [40 CFR 63.1511(c)(4)]

v. Method 5 for the concentration of PM. [40 CFR 63.1511(c)(5)]

vi. Method 23 for the concentration of D/F. [40 CFR 63.1511(c)(7)]

vii. Method 26A for the concentration of HCl. Method 26 may also be used, except at sources where entrained water droplets are present in the emission stream. Where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the permittee must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system. [40 CFR 63.1511(c)(9)]

d. The permittee may use alternative test methods as provided in 40 CFR 63.1511(d)(1) through (3). [40 CFR 63.1511(d)]

e. The permittee must conduct a performance test every 5 years following the initial performance test. [40 CFR 63.1511(e)]

f. The permittee must 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

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

establish the minimum or maximum value or range, the permittee must use the appropriate procedures in 40 CFR 63.1511 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 Division. [40 CFR 63.1511(g)]

i. The complete emission test report(s) used as the basis of the parameter(s) is submitted. [40 CFR 63.1511(g)(1)]
ii. The same test methods and procedures as required by 40 CFR 63, Subpart RRR were used in the test. [40 CFR 63.1511(g)(2)]
iii. 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. [40 CFR 63.1511(g)(3)]
iv. All process and control equipment operating parameters required to be monitored were monitored as required in 40 CFR 63, Subpart RRR and documented in the test report. [40 CFR 63.1511(g)(4)]
v. If the permittee wants to conduct a new performance test and establish different operating parameter values, they must submit a revised site specific test plan and receive approval in accordance with 40 CFR 63.1511(a). In addition to the results of the new performance test to establish operating parameter values, they must meet the requirements of 40 CFR 63.1511(g)(1) through (g)(4). [40 CFR 63.1511(g)(5)]

g. The permittee must conduct performance tests to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard). [40 CFR 63.1512(d)(1)]

h. The permittee may choose to determine the rate of reactive flux addition to the group 1 furnace and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the group 1 furnace is emitted. Under these circumstances, the permittee is not required to conduct an emission test for HCl. [40 CFR 63.1512(d)(3)]

i. During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the permittee of an affected source or emission unit, subject to an emission limit in a kg/Mg (lb/ton) of feed/charge format, must measure (or otherwise determine) and record the total weight of feed/charge to the affected source or emission unit for each of the three test runs and calculate and record the total weight. A permittee that chooses to demonstrate compliance on the basis of the aluminum production weight must measure the weight of aluminum produced by the emission unit or affected source instead of the feed/charge weight. [40 CFR 63.1512(k)]

j. The permittee of an affected source or emission unit using a continuous opacity monitoring system must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in appendix B to 40 CFR part 60. Following the performance evaluation, the permittee must measure and record the opacity of emissions

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(l)]

k. The permittee of a group 1 furnace using a lime-injected fabric filter must use these procedures to establish an operating parameter value or range for the inlet gas temperature. [40 CFR 63.1512(n)]
   i. Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests; [40 CFR 63.1512(n)(1)]
   ii. Determine and record the 15-minute block average temperatures for the 3 test runs; and [40 CFR 63.1512(n)(2)]
   iii. Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs. [40 CFR 63.1512(n)(3)]

l. The permittee must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate: [40 CFR 63.1512(o)]
   i. Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the HCl and D/F tests, determine and record the 15-minute block average weights, and calculate and record the total weight of the gaseous or liquid reactive flux for the 3 test runs; [40 CFR 63.1512(o)(1)]
   ii. Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs; [40 CFR 63.1512(o)(2)]
   iii. 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: [40 CFR 63.1512(o)(3)]

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

   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;
   iv. 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 [40 CFR 63.1512(o)(4)]
   v. If a solid reactive flux other than magnesium chloride is used, the permittee must derive the appropriate proportion factor subject to approval by the Division. [40 CFR 63.1512(o)(5)]

m. The permittee of an affected source or emission unit using a lime-injected fabric filter system must use these procedures during the HCl and D/F tests to establish an operating

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

parameter value for the feeder setting for each operating cycle or time period used in the performance test. [40 CFR 63.1512(p)]

i. For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and [40 CFR 63.1512(p)(1)]

ii. Record the feeder setting for the 3 test runs. If the feed rate setting and lime injection rates vary between the runs, determine and record the average feed rate and lime injection rate from the 3 runs. [40 CFR 63.1512(p)(2)]

n. To convert D/F measurements to TEQ units, the permittee must use the procedures and equations in Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update (EPA–625/3–89–016), incorporated by reference. Refer to 40 CFR 63.14 [40 CFR 63.1513(d)]

o. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

a. The permittee must monitor all control equipment and processes according to the requirements in 40 CFR 63.1510. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to 40 CFR 63, Subpart RRR. [40 CFR 63.1510(a)]

b. The permittee shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan. Refer to **1. Operating Limitations (h)** and **6. Specific Reporting Requirements (a)**, for OM&M plan requirements. [40 CFR 63.1510(b)]

c. The permittee must inspect the labels for each group 1 furnace 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. [40 CFR 63.1510(c)]

d. The permittee shall: [40 CFR 63.1510(d)]

i. Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and [40 CFR 63.1510(d)(1)]

ii. Inspect the 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)(2)]

iii. Meet the requirements in **SECTION E**.

e. The permittee must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

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 Division to determine the total weight of feed/charge or aluminum production to the affected source or emission unit. [40 CFR 63.1510(e)]

i. The accuracy of the weight measurement device or procedure must be ±1 percent of the weight being measured. The permittee may apply to the permitting agency for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standard. [40 CFR 63.1510(e)(1)]

ii. 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 63.1510(e)(2)]

f. These requirements apply to the permittee of a group 1 furnace (with or without add-on air pollution control devices). The permittee must: [40 CFR 63.1510(j)]

i. Install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to each affected source or emission unit. [40 CFR 63.1510(j)(1)]

1) The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test. [40 CFR 63.1510(j)(1)(i)]

2) The accuracy of the weight measurement device must be ±1 percent of the weight of the reactive component of the flux being measured. The permittee may apply to the Division for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of ±1 percent impracticable. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standards. [40 CFR 63.1510(j)(1)(ii)]

3) 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 63.1510(j)(1)(iii)]

ii. 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). [40 CFR 63.1510(j)(2)]

iii. 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: [40 CFR 63.1510(j)(3)]

1) Gaseous or liquid reactive flux other than chlorine; and [40 CFR 63.1510(j)(3)(i)]

2) Solid reactive flux. [40 CFR 63.1510(j)(3)(ii)]

iv. 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). [40 CFR 63.1510(j)(4)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

v. The permittee of a group 1 furnace or in-line fluxer performing reactive fluxing may apply to the Division 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. [40 CFR 63.1510(j)(5)]

g. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly throughput in tons; and
   ii. The monthly natural gas usage in MMscf.

h. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

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 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
   i. The permittee must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63.1517(a)(1)]
   ii. The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and [40 CFR 63.1517(a)(2)]
   iii. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]

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) must maintain records of: [40 CFR 63.1517(b)]
   i. For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter: [40 CFR 63.1517(b)(1)]
      1) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken. [40 CFR 63.1517(b)(1)(i)]
      2) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.1517(b)(1)(ii)]
   ii. For each scrap dryer/delacquering kiln/decoating kiln and group 1 furnace, subject to D/F and HCl emission standards with emissions controlled by a lime-injected fabric

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

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. [40 CFR 63.1517(b)(3)]

iii. For each affected source and emission unit with emissions controlled by a lime-injected fabric filter: [40 CFR 63.1517(b)(4)]
   1) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken; [40 CFR 63.1517(b)(4)(i)]
   2) If lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken. If a lime feeder has been repaired or replaced, this action must be documented along with records of the new feeder calibration and the feed mechanism set points necessary to maintain the lb/hr feed rate operating limit. These records must be maintained on site and available upon request. [40 CFR 63.1517(b)(4)(ii)]

iv. For each group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer, records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken. [40 CFR 63.1517(b)(5)]

v. For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]

vi. 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. [40 CFR 63.1517(b)(7)]

vii. Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements. [40 CFR 63.1517(b)(13)]

viii. Records of annual inspections of emission capture/collection and closed vent systems or, if the alternative to the annual flow rate measurements is used, records of differential pressure; fan RPM or fan motor amperage; static pressure measurements; or duct centerline velocity using a hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple, as appropriate. [40 CFR 63.1517(b)(14)]

ix. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

x. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including: [40 CFR 63.1517(b)(16)]
   1) OM&M plan; and [40 CFR 63.1517(b)(16)(ii)]
   2) Site-specific secondary aluminum processing unit emission plan (as applicable). [40 CFR 63.1517(b)(16)(iii)]

xi. For any failure to meet an applicable standard, the permittee must maintain the following records; [40 CFR 63.1517(b)(18)]
   1) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken. [40 CFR 63.1517(b)(18)(i)]
   2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.1517(b)(18)(ii)]

xii. For each period of startup or shutdown for which the permittee chooses to demonstrate compliance for an affected source, the permittee must comply with 40 CFR 63.1517(b)(19)(i) or (ii). [40 CFR 63.1517(b)(19)]
   1) To demonstrate compliance based on a feed/charge rate of zero, a flux rate of zero and the use of electricity, propane or natural gas as the sole sources of heating or the lack of heating, the permittee must submit a semiannual report in accordance with 40 CFR 63.1516(b)(2)(vii) or maintain the following records: [40 CFR 63.1517(b)(19)(i)]
      A. The date and time of each startup ad shutdown; [40 CFR 63.1517(b)(19)(i)(A)]
      B. The quantities of feed/charge and flux introduced during each startup and shutdown; and [40 CFR 63.1517(b)(19)(i)(B)]
      C. The types of fuel used to heat the unit, or that no fuel was used, during startup and shutdown; or [40 CFR 63.1517(b)(19)(i)(C)]
   2) To demonstrate compliance based on performance tests, the permittee must maintain the following records: [40 CFR 63.1517(b)(19)(ii)]
      A. The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(ii)(A)]
      B. The measured emission in lb/hr or μg/hr or ng/hr; [40 CFR 63.1517(b)(19)(ii(B)]
      C. The measured feed/charge rate in tons/hr or Mg/hr from the most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data is available; and [40 CFR 63.1517(b)(19)(ii)(C)]
      D. An explanation to support that such conditions are considered representative startup and shutdown operations. [40 CFR 63.1517(b)(19)(ii)(D)]

c. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly throughput in tons; and
   ii. The monthly natural gas usage in MMscf.

d. Refer to **SECTION F** for general recordkeeping requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

a. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]
   i. If the Division 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 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.
   ii. 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 Division.

b. Within the OM&M plan prepared in accordance with 40 CFR 63.1510(b), the permittee shall include the following information: [40 CFR 63.1510(s)(1)]
   i. The identification of each emission unit in the SAPU; [40 CFR 63.1510(s)(1)(i)]
   ii. The specific control technology or pollution prevention measure to be used for each emission unit in the SAPU and the date of its installation or application; [40 CFR 63.1510(s)(1)(ii)]
   iii. The emission limit calculated for each SAPU and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit; [40 CFR 63.1510(s)(1)(iii)]
   iv. Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of 40 CFR 63, Subpart RRR; and [40 CFR 63.1510(s)(1)(iv)]
   v. The monitoring requirements applicable to each emission unit in a SAPU and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t). [40 CFR 63.1510(s)(1)(v)]

c. The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions: [40 CFR 63.1510(s)(2)]
   i. Any averaging among emissions of differing pollutants; [40 CFR 63.1510(s)(2)(i)]
   ii. The inclusion of any affected sources other than emission units in a secondary aluminum processing unit; [40 CFR 63.1510(s)(2)(ii)]
   iii. The inclusion of any emission unit while it is shutdown; or [40 CFR 63.1510(s)(2)(iii)]
   iv. The inclusion of any periods of startup or shutdown in emission calculations. [40 CFR 63.1510(s)(2)(iv)]

d. To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the permittee shall submit a request to the Division containing the information required by 40 CFR 63.1510(s)(1), above, and obtain approval of the Division prior to implementing any revisions. [40 CFR 63.1510(s)(3)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e. Except as provided in 40 CFR 63.1510(u), the permittee shall calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F for each secondary aluminum processing unit (SAPU) on a daily basis. [40 CFR 63.1510(t)]

f. As an alternative to the procedures of 40 CFR 63.1510(t), the permittee may demonstrate, through performance tests, that each individual emission unit within the secondary aluminum production unit (SAPU) is in compliance with the applicable emission limits for the emission unit. [40 CFR 63.1510(u)]

g. If the permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR 63.1510(j)(5) and 40 CFR 63.1510(v), the permittee may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in 40 CFR 63.1510(w)(1) through (6). [40 CFR 63.1510(w)]

h. As required by 40 CFR 63.9(e) and (f), the permittee must provide notification of the anticipated date for conducting performance tests and visible emission observations. The permittee must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place. [40 CFR 63.1515(a)(6)]

i. As required by 40 CFR 63.9(g), the permittee must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems. [40 CFR 63.1515(a)(7)]

j. The permittee must 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. [40 CFR 63.1516(b)]
   i. A report must be submitted if any of these conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]
      1) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(i)]
      2) The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(ii)]
      3) 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). [40 CFR 63.1516(b)(1)(iv)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
5) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit. [40 CFR 63.1516(b)(1)(vii)]

ii. Each report must include the following certification, as applicable: [40 CFR 63.1516(b)(2)]
1) For each affected source choosing to demonstrate compliance during periods of startup and shutdown in accordance with 40 CFR 63.1513(f)(1): "During each startup and shutdown, no flux and no feed/charge were added to the emission unit, and electricity, propane or natural gas were used as the sole source of heat or the emission unit was not heated." [40 CFR 63.1516(b)(2)(vii)]

iii. The permittee must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested. [40 CFR 63.1516(b)(3)]
1) Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.2) required by 40 CFR 63, Subpart RRR, the permittee must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either 40 CFR 63.1516(b)(3)(i)(A) or (B). [40 CFR 63.1516(b)(3)(i)]

iv. A malfunction report that is required under 40 CFR 63.1516(d) shall be submitted simultaneously with the semiannual excess emissions/summary report required by 40 CFR 63.1516(b). [40 CFR 63.1516(b)(4)]

k. For the purpose of annual certifications of compliance required by 40 CFR Part 70, the permittee must certify continuing compliance based upon, but not limited to, the following conditions: [40 CFR 63.1516(c)]
i. Any period of excess emissions, as defined in 40 CFR 63.1516(b)(1), that occurred during the year were reported as required by 40 CFR 63, Subpart RRR; and [40 CFR 63.1516(c)(1)]
ii. All monitoring, recordkeeping, and reporting requirements were met during the year. [40 CFR 63.1516(c)(2)]

l. If there was a malfunction during the reporting period, the permittee must submit a report that includes the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken for each malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must include a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions, including, but not limited to, product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The report must also include a description of actions taken by an permittee during a malfunction of

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

an affected source to minimize emissions in accordance with 40 CFR 63.1506(a)(5). [40 CFR 63.1516(d)]

m. All reports required by 40 CFR 63, Subpart RRR not subject to the requirements in 40 CFR 63.1516(b) must be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the permittee of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to 40 CFR 63.1516(b) in paper format. [40 CFR 63.1516(e)]

n. Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Requirements

a. The permittee of an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR must install, calibrate, maintain, and continuously operate a bag leak detection system as required in 40 CFR 63.1510(f)(1) or a continuous opacity monitoring system as required in 40 CFR 63.1510(f)(2). [40 CFR 63.1510(f)]

i. These requirements apply to the permittee of a new or existing affected source or existing emission unit using a bag leak detection system: [40 CFR 63.1510(f)(1)]

1) The permittee must install and operate a bag leak detection system for each exhaust stack of a fabric filter. [40 CFR 63.1510(f)(1)(i)]
2) Each bag leak detection system must be installed, calibrated, operated, and maintained according to manufacturer's operating instructions. [40 CFR 63.1510(f)(1)(ii)]
3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.1510(f)(1)(iii)]
4) The bag leak detection system sensor must provide output of relative or absolute PM loadings. [40 CFR 63.1510(f)(1)(iv)]
5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor. [40 CFR 63.1510(f)(1)(v)]
6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. [40 CFR 63.1510(f)(1)(vi)]
7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter. [40 CFR 63.1510(f)(1)(vii)]
8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.1510(f)(1)(viii)]
9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.1510(f)(1)(ix)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

10) Following initial adjustment of the system, the permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. [40 CFR 63.1510(f)(1)(x)]

ii. These requirements apply to the permittee of a new or existing affected source or an existing emission unit using a continuous opacity monitoring system. [40 CFR 63.1510(f)(2)]
   1) The permittee must install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack. [40 CFR 63.1510(f)(2)(i)]
   2) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in appendix B to 40 CFR part 60. [40 CFR 63.1510(f)(2)(ii)]

b. These requirements apply to the permittee of a group 1 furnace using a lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(h)]
   i. 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 subpart A of part 63. [40 CFR 63.1510(h)(1)]
   ii. The temperature monitoring device must meet each of these performance and equipment specifications: [40 CFR 63.1510(h)(2)]
      1) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period. [40 CFR 63.1510(h)(2)(i)]
      2) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(n). [40 CFR 63.1510(h)(2)(ii)]
      3) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator. [40 CFR 63.1510(h)(2)(iii)]

c. These requirements apply to the permittee of an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(i)]
   i. The permittee of a continuous lime injection system must verify that lime is always free-flowing by either: [40 CFR 63.1510(i)(1)]
      1) Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the permittee must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The permittee may return to

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

inspections at least once every 8 hour period if corrective action results in no further blockages of lime during the 3-day period; or [40 CFR 63.1510(i)(1)(i)]

2) Subject to the approval of the Division, 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 must promptly initiate and complete corrective action, or [40 CFR 63.1510(i)(1)(ii)]
3) Subject to the approval of the Division, 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 must promptly initiate and complete corrective action. [40 CFR 63.1510(i)(1)(iii)]

ii. The permittee of a continuous lime injection system must record the lime feeder setting once each day of operation. [40 CFR 63.1510(i)(2)]

iii. A permittee who intermittently adds lime to a lime-injected fabric filter must obtain approval from the Division for a lime addition monitoring procedure. The Division will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis. [40 CFR 63.1510(i)(3)]

iv. At least once per month, verify that the lime injection rate in pounds per hour (lb/hr) is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. If the monthly check of the lime injection rate is below the 90 percent, the permittee must repair or adjust the lime injection system to restore normal operation within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to demonstrate that the lime injection rate is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. In the event that a lime feeder is repaired or replaced, the feeder must be calibrated, and the feed rate must be restored to the lb/hr feed rate operating limit established during the most recent performance test within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to complete the repair or replacement and establishing a new setting. The repair or replacement, and the establishment of the new feeder setting(s) must be documented in accordance with the recordkeeping requirements of 40 CFR 63.1517. [40 CFR 63.1510(i)(4)]

d. The control devices associated with EU04 shall be properly maintained, used in conjunction with operation of the associated emission unit, and operated consistent with the manufacturer’s specifications. [401 KAR 52:020, Section 10]

e. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 06 (EU06) Salt Cake Processing Facility (SCPF)

Description: Salt cake is processed through a series of screens and crushers to facilitate the recovery of small amounts of aluminum left in the salt cake. All of the equipment is electrically driven. Baghouse filters control particulate emissions in four different areas of the plant: the receiving building, primary processing, secondary processing and the reject building.
Maximum Capacity: 40 tons of salt cake/hr
Control Devices: Three Baghouses
Construction Commenced: 1995

APPLICABLE REGULATIONS:
401 KAR 53:010, Ambient air quality standards
401 KAR 59:010, New process operations
40 CFR 64, Compliance Assurance Monitoring (CAM), for PM.

PRECLUDED REGULATION:
401 KAR 51:017, Prevention of significant deterioration of air quality

1. **Operating Limitations:**
   a. The associated control device(s) shall be operated at all times when the salt cake processing facility is operating. [To preclude 401 KAR 51:017]

      Compliance Demonstration Method:
      The permittee shall report any time the unit is operated without the control device(s). The permittee must calculate the excess emissions that occurred during an outage and report the deviation in accordance with 401 KAR 50:055. Refer to **5. Specific Recordkeeping Requirements.** Refer to **SECTION E**.

   b. The permittee shall not exceed 219,000 tons of salt cake processed/yr based on a rolling 12-month average. [To preclude 401 KAR 51:017]

      Compliance Demonstration Method:
      Refer to **4. Specific Monitoring Requirements.**

2. **Emission Limitations:**
   a. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

      Compliance Demonstration Method:
      Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

   b. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]

i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr
ii. For process weight rates up to 30.00 tons/hr: $E=3.59P^{0.62}$
iii. For process weight rates in excess of 30.00 tons/hr: $E=17.31P^{0.16}$

Where:
E = the allowable PM emissions rate (lbs/hr)
P = the process weight rate (tons/hr)

Compliance Demonstration Method:
The permittee shall demonstrate compliance each month by comparing the allowable rate to the actual rate calculated using the following equation:

$$E_{PMi} = \frac{P_i \times EF_{PM}}{h_i} \times \left(1 - \frac{CE}{100}\right)$$

Where:
i = month;
E_{PMi} = the actual average hourly particulate emissions rate for month i (lb/hr);
P_i = the actual process weight rate for month i (tons/month);
EF_{PM} = the overall uncontrolled KYEIS particulate emission factor (lb/unit);
h_i = the actual total hours of operation for month i (hrs/month); and
CE = the overall control efficiency (%).

c. The permittee shall ensure that odors are not detected beyond the property line in accordance with the following standard: [401 KAR 53:010, Section 4, Appendix A]

At any time when 1 volume unit of ambient air is mixed with 7 volume units of odorless air, the mixture must have no detectable odor.

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the odor standard by taking reasonable precautions to prevent ammonia gasses and their odors from migrating beyond the property line. Precautions shall include, but are not limited to, minimizing the process byproducts' exposure to moisture.

3. Testing Requirements:
Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:
a. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
i. The monthly hours of operation for EU06;
ii. The monthly and 12-month rolling processing rate of salt cake in tons; and
iii. The daily pressure drop across the baghouse.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. The permittee shall perform a qualitative visual observation of the opacity of emissions from each baghouse stack no less frequently than once every 7 calendar days while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), then the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

c. Refer to **Appendix A** for CAM requirements pursuant to 40 CFR 64.

d. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly hours of operation;
   ii. The monthly and 12-month rolling processing rate of salt cake in tons;
   iii. The daily pressure drop across each baghouse;
   iv. The hourly PM emission rate, as calculated for **2. Emission Limitations**, in lb/hr; and
   v. The list of all individuals at the facility who are certified Visible Emissions Evaluators and the date of their certification.

b. The permittee shall maintain records of control equipment inspections that includes the date each inspection was performed and whether the baghouse was in proper working condition. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the qualitative visual observations required by **4. Specific Monitoring Requirements (b)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions. [401 KAR 52:020, Section 10]

d. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). [40 CFR 64.9(b)(1)]

e. Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b)(2)]

f. Refer to **SECTION F** for general recordkeeping requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

a. On and after the date specified in 40 CFR 64.7(a) by which the permittee must use monitoring that meets the requirements of 40 CFR 64, the permittee shall submit monitoring reports to the Division in accordance with **SECTION F**. [40 CFR 64.9(a)(1)]

b. A report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under 40 CFR 70.6(a)(3)(iii) and the following information, as applicable: [40 CFR 64.9(a)(2)]

i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; [40 CFR 64.9(a)(2)(i)]

ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and [40 CFR 64.9(a)(2)(ii)]

iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. [40 CFR 64.9(a)(2)(iii)]

iv. The threshold for requiring the implementation of a QIP is an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a semiannual reporting period. [40 CFR 64.8(a)]

c. Refer to **Appendix A** for reporting requirements under 40 CFR 64.

d. Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The permittee shall install, calibrate, maintain, and operate pressure drop monitoring devices to continuously monitor the differential pressure across each baghouse to ensure that pressure does not drop outside the pressure drop range documented by the manufacturer’s specifications or the pressure drop range determined during the most recent performance test. Personnel will monitor the differential pressure reading across each baghouse at least once per day during operation. [401 KAR 52:020, Section 10]

b. The control equipment shall be properly maintained, used in conjunction with operation of the associated emission unit, and operated consistent with the manufacturer’s specifications. [401 KAR 52:020, Section 10]

c. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 07 (EU07) Salt Cake Cooling (Mud Room)

Description: Salt cake and dross are periodically removed from reverberatory and rotary furnaces and delivered to EU07 and cooled. All equipment is electrically driven.
Maximum Capacity: 25 tons/hr
Control Device: Baghouse
Construction Commenced: 1995

APPLICABLE REGULATIONS:
401 KAR 53:010, Ambient air quality standards
401 KAR 59:010, New process operations

PRECLUDED REGULATION:
401 KAR 51:017, Prevention of significant deterioration of air quality

1. **Operating Limitations:**
   The associated control device shall be operated at all times when EU07 is operating. [To preclude 401 KAR 51:017]

   Compliance Demonstration Method:
   The permittee shall report any time the unit is operated without the control device(s). The permittee must calculate the excess emissions that occurred during an outage and report the deviation in accordance with 401 KAR 50:055. Refer to **5. Specific Recordkeeping Requirements.** Refer to **SECTION E**.

2. **Emission Limitations:**
   a. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

      Compliance Demonstration Method:
      Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

   b. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]
      i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr
      ii. For process weight rates up to 30.00 tons/hr: $E=3.59P^{0.62}$
      Where:
      E = the allowable PM emissions rate (lbs/hr)
      P = the process weight rate (tons/hr)

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method:
The permittee shall demonstrate compliance each month by comparing the allowable rate to the actual rate calculated using the following equation:

$$E_{PMi} = \frac{P_i \times EF_{PM}}{h_i} \times \left(1 - \frac{CE}{100}\right)$$

Where:
i = month;
E_{PMi} = the actual average hourly particulate emissions rate for month i (lb/hr);
P_i = the actual process weight rate for month i (tons/month);
EF_{PM} = the overall uncontrolled KYEIS particulate emission factor (lb/unit);
h_i = the actual total hours of operation for month i (hrs/month); and
CE = the overall control efficiency (%).

c. The permittee shall ensure that odors are not detected beyond the property line in accordance with the following standard: [401 KAR 53:010, Section 4, Appendix A]

At any time when 1 volume unit of ambient air is mixed with 7 volume units of odorless air, the mixture must have no detectable odor.

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the odor standard by taking reasonable precautions to prevent ammonia gasses and their odors from migrating beyond the property line. Precautions shall include, but are not limited to, minimizing the process byproducts' exposure to moisture.

3. Testing Requirements:
Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:
a. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly hours of operation for EU07;
   ii. The monthly processing rate of salt cake in tons; and
   iii. The daily pressure drop across the baghouse.

b. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack no less frequently than once every 7 calendar days while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), then the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly hours of operation for EU07;
   ii. The monthly processing rate of salt cake in tons,
   iii. The daily pressure drop across the baghouse;
   iv. The hourly PM emission rate, as calculated for **2. Emission Limitations**, in lb/hr; and
   v. The list of all individuals at the facility who are certified Visible Emissions Evaluators and the date of their certification.

b. The permittee shall maintain records of control equipment inspections that includes the date each inspection was performed and whether the baghouse was in proper working condition. [401 KAR 52:020, Section 10]

c. The permittee shall retain records of the qualitative visual observations required by **4. Specific Monitoring Requirements (b)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions. [401 KAR 52:020, Section 10]

d. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The permittee shall install, calibrate, maintain, and operate a pressure drop monitoring device to continuously monitor the differential pressure across the baghouse to ensure that pressure does not drop outside the pressure drop range documented by the manufacturer's specifications or the pressure drop range determined during the most recent performance test. Personnel will monitor the differential pressure reading across the baghouse at least once per day during operation. [401 KAR 52:020, Section 10]

b. The control equipment shall be properly maintained, used in conjunction with operation of the associated emission unit, and operated consistent with the manufacturer's specifications. [401 KAR 52:020, Section 10]

c. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 08 (EU08) Landfill Area

Description: An onsite residual landfill provides a disposal area for baghouse dust, aluminum processing waste and secondary aluminum smelter slag. Salt cake is disposed in the area once it has been processed and the remaining aluminum has been recovered. Fugitive emissions, including ammonia and particulate from dumping and haul roads, are possible. Note that waste may also come from affiliated plants in other states.

Maximum Capacity: 32.5 ton/hr waste dumped; 10065 VMT/yr haul roads
Control Device: Water suppression
Construction Commenced: 1995

APPLICABLE REGULATIONS:
401 KAR 53:010, Ambient air quality
401 KAR 63:010, Fugitive emissions

1. **Operating Limitations:**
   a. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      i. Use, if possible, of water or suitable chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land; [401 KAR 63:010, Section 3(1)(a)]
      ii. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts; [401 KAR 63:010, Section 3(1)(b)]
      iii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations. [401 KAR 63:010, Section 3(1)(c)]
      iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
      v. The maintenance of paved roadways in a clean condition; or [401 KAR 63:010, Section 3(1)(e)]
      vi. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water. [401 KAR 63:010, Section 3(1)(f)]

   b. If dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may, based on the cause, type, or amount of a fugitive emission, order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas borne material leaving the building or equipment are treated by

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

removal or destruction of air contaminants before discharge to the open air. [401 KAR 63:010, Section 3(3)]

c. At all times while in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. [401 KAR 63:010, Section 4(1)]

d. A person shall not cause, suffer, or allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway. [401 KAR 63:010, Section 4(3)]

Compliance Demonstration Method:
Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

2. Emission Limitations:

a. A person shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. Part 60, for: [401 KAR 63:010, Section 3(2)]
   i. More than five (5) minutes of emission time during any sixty (60) minute observation period; or [401 KAR 63:010, Section 3(2)(a)]
   ii. More than twenty (20) minutes of emission time during any twenty-four (24) hour period. [401 KAR 63:010, Section 3(2)(b)]

Compliance Demonstration Method:
Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

b. The permittee shall ensure that odors are not detected beyond the property line in accordance with the following standard: [401 KAR 53:010, Section 4, Appendix A]

At any time when 1 volume unit of ambient air is mixed with 7 volume units of odorless air, the mixture must have no detectable odor.

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the odor standard by taking reasonable precautions to prevent ammonia gasses and their odors from migrating beyond the property line. Precautions shall include, but are not limited to, minimizing the waste exposure to moisture.

3. Testing Requirements:

Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

a. The permittee shall monitor the reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

b. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

c. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the reasonable precautions taken to prevent particulate matter from becoming airborne, on a daily basis. Notation of the operating status, down-time, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   i. Any Reference Method 22 performed and field records identified in Reference Method 22.
   ii. Any corrective action taken and the results.

c. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

Refer to **SECTION E.**

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 13 (EU13) Rotary Furnace #8 &
Emission Unit 14 (EU14) Rotary Furnace #9

Description:
Each natural gas-fired rotary furnace will process aluminum scrap, concentrate from the Salt Cake Processing Facility (EU06), and dross. These units are classified as new group 1 furnaces melting other than clean charge using reactive flux under 40 CFR 63, Subpart RRR.

Maximum Capacity:	8.22 ton/hr molten Al, each
Maximum Firing Rate:	24 MMBtu/hr, each
Control Device:	Lime-Injected Baghouses
Construction Commenced:	2011; EU13 Modified in 2024

APPLICABLE REGULATIONS:
401 KAR 51:017, Prevention of significant deterioration of air quality, for CO
401 KAR 59:010, New process operations
401 KAR 63:002, Section 2(4)(ccc) 40 C.F.R. 63.1500 to 63.1519, Tables 1 to 3, and Appendix A (Subpart RRR), *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*

PRECLUDED REGULATION:
401 KAR 51:017, Prevention of significant deterioration of air quality, for PM, PM_{10}, $PM_{2.5}$, & VOC

1. **Operating Limitations:**
   a. The permittee must operate all new and existing affected sources and control equipment according to the requirements in 40 CFR 63.1506. [40 CFR 63.1506(a)(1)]

   b. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1506(a)(5)]

   c. The permittee must provide and maintain easily visible labels posted at each group 1 furnace that identifies the applicable emission limits and means of compliance, including: [40 CFR 63.1506(b)]
      i. The type of affected source or emission unit (*e.g.*, group 1 furnace). [40 CFR 63.1506(b)(1)]
      ii. 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)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. For each affected source or emission unit equipped with an add-on air pollution control device, the permittee must: [40 CFR 63.1506(c)]
   i. Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, see 40 CFR 63.14); [40 CFR 63.1506(c)(1)]
   ii. 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 [40 CFR 63.1506(c)(2)]
   iii. Operate each capture/collection system according to the procedures and requirements in the OM&M plan. [40 CFR 63.1506(c)(3)]

e. The permittee of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge must: [40 CFR 63.1506(d)]
   i. Except as provided in 40 CFR 63.1506(d)(3), 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 [40 CFR 63.1506(d)(1)]
   ii. Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan. [40 CFR 63.1506(d)(2)]
   iii. The permittee may choose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit, provided that: [40 CFR 63.1506(d)(3)]
      1) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and [40 CFR 63.1506(d)(3)(i)]
      2) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight. [40 CFR 63.1506(d)(3)(ii)]

f. The permittee of a group 1 furnace with emissions controlled by a lime-injected fabric filter must: [40 CFR 63.1506(m)]
   i. If a bag leak detection system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must: [40 CFR 63.1506(m)(1)]
      1) Initiate corrective action within 1 hour of a bag leak detection system alarm. [40 CFR 63.1506(m)(1)(i)]
      2) Complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(m)(1)(ii)]
      3) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the 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)(iii)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. If a continuous opacity monitoring system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must: [40 CFR 63.1506(m)(2)]
   1) Initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity; and [40 CFR 63.1506(m)(2)(i)]
   2) Complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(m)(2)(ii)]

iii. Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F). [40 CFR 63.1506(m)(3)]

iv. For a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test. [40 CFR 63.1506(m)(4)]

v. Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test. [40 CFR 63.1506(m)(5)]

g. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]

h. The permittee shall prepare and implement for each group 1 furnace, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (a)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]
   i. 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. [40 CFR 63.1510(b)(1)]
   ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]
   iii. 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)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
   1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
   2) 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. [40 CFR 63.1510(b)(4)(ii)]

v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]

vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
   1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]
   2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]

vii. 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)]

Compliance Demonstration Method:
Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

i. Prior to changing furnace classifications to those not already authorized in **SECTION B**, the permittee shall submit a permit application to incorporate the applicable standards from 40 CFR 63, Subpart RRR. [401 KAR 52:020, Section 7]

j. The permittee shall not exceed 6,000 tons/month of raw material charged to each furnace, averaged across both furnaces. [To preclude the applicability of 401 KAR 51:017]

Compliance Demonstration Method:
The permittee shall add the monthly throughput for the furnaces together, divide the sum by the number of active furnaces, and compare the result to the limit. Refer to **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

2. Emission Limitations:

a. The permittee shall not exceed the following CO limits: [401 KAR 51:017]
   i. 3.54 lb of CO/ton of Al from each furnace; and

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. 128.73 ton of CO/yr from each furnace on a 12-month rolling basis (including fugitive emissions) averaged across both furnaces.

Compliance Demonstration Method:

A. After each performance test, the permittee shall compare the CO emissions per ton of throughput established through the test to the limit for each type of particulate.

B. For the 12-month rolling total emission limit, the permittee shall calculate the emissions of CO each month for each active furnace using the following equations and compare the result to the limit:

$$E_{CO_x} = S_{D_x} + F_{D_x} + S_{O_x} + F_{O_x}$$

$$M_{CO} = \frac{\sum_{x=1}^{2} E_{CO_x}}{A}$$

$$T_{CO} = \sum_{n=1}^{12} M_{CO_n}$$

Where:

x = Furnace (either EU13 or EU14);

E_{CO_x} = The monthly CO emissions from furnace *x* in tons of CO/month

S_{D_x} = Stack CO emissions from furnace *x* due to dross, concentrate, and salt cake charged in tons/month;

F_{D_x} = Fugitive CO emissions from furnace *x* due to dross, concentrate, and salt cake charged in tons/month;

S_{O_x} = Stack CO emissions from furnace *x* due to all other material charged in tons/month;

F_{O_x} = Fugitive CO emissions from furnace *x* due to all other material charged in tons/month;

A = Total number of active furnaces during the month (1 or 2);

M_{CO} = Total CO emissions for the month for each furnace, averaged between the furnaces, in tons of CO/month;

n = month;

M_{CO_n} = Total CO average emissions for month *n* for each furnace, in tons of CO/month;

T_{CO} = Total 12-month rolling CO emissions for each furnace, in tons/yr.

Note: To calculate fugitive emissions, the permittee shall multiply the stack emissions by 0.01010, the ratio of fugitive emissions to stack emissions.

C. Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

b. The permittee shall not exceed 19.38 tons of VOC/yr from each furnace on a 12-month rolling basis, averaged across both furnaces. [To preclude the applicability of 401 KAR 51:017]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method:

A. For the 12-month rolling total emission limit, the permittee shall calculate the emissions of VOC each month for each active furnace using the following equations and compare the result to the limit:

$$E_{VOC_x} = S_{D_x} + F_{D_x} + S_{O_x} + F_{O_x}$$

$$M_{VOC} = \frac{\sum_{x=1}^{2} E_{VOC_x}}{A}$$

$$T_{VOC} = \sum_{n=1}^{12} M_{VOC_n}$$

Where:

x = Furnace (either EU13 or EU14);

E_{VOC_x} = The monthly VOC emissions from furnace *x* in tons of VOC/month

S_{D_x} = Stack VOC emissions from furnace *x* due to dross, concentrate, and salt cake charged in tons/month;

F_{D_x} = Fugitive VOC emissions from furnace *x* due to dross, concentrate, and salt cake charged in tons/month;

S_{O_x} = Stack VOC emissions from furnace *x* due to all other material charged in tons/month;

F_{O_x} = Fugitive VOC emissions from furnace *x* due to all other material charged in tons/month;

A = Total number of active furnaces during the month;

M_{VOC} = Total VOC emissions for the month for each furnace, averaged between the furnaces, in tons of VOC/month;

n = month;

M_{VOC_n} = Total VOC average emissions for month *n* for each furnace, in tons of VOC/month;

T_{VOC} = Total 12-month rolling VOC emissions for each furnace, in tons/yr.

Note: To calculate fugitive emissions, the permittee shall multiply the stack emissions by 0.01010, the ratio of fugitive emissions to stack emissions.

B. Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

c. The permittee shall not exceed the following PM, PM_{10} and $PM_{2.5}$ limits from each furnace: [To preclude the applicability of 401 KAR 51:017]*

i. For PM: 7.05 tons/yr from each furnace on a 12-month rolling basis averaged across both furnaces;

ii. For PM_{10}: 6.495 tons/yr from each furnace on a 12-month rolling basis averaged across both furnaces; and

iii. For $PM_{2.5}$: 3.69 tons/yr from each furnace on a 12-month rolling basis averaged across both furnaces.

*Note that limits listed for tons/yr from each furnace include fugitive emissions.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method:

A. For the 12-month rolling total emission limit, the permittee shall calculate the emissions of PM, PM_{10} and $PM_{2.5}$ each month for each active furnace using the following equations and compare the result to the limit:

$$E_{PM_x} = S_{D_x} + F_{D_x} + S_{O_x} + F_{O_x}$$

$$M_{PM} = \frac{\sum_{x=1}^{2} E_{PM_x}}{A}$$

$$T_{PM} = \sum_{n=1}^{12} M_{PM_n}$$

Where:

x = Furnace (either EU13 or EU14);

E_{PM_x} = The monthly PM, PM_{10} or $PM_{2.5}$ emissions from furnace *x* in tons of PM, PM_{10} or $PM_{2.5}$/month

S_{D_x} = Stack PM, PM_{10} or $PM_{2.5}$ emissions from furnace *x* due to dross, concentrate, and salt cake charged in tons/month;

F_{D_x} = Fugitive PM, PM_{10} or $PM_{2.5}$ emissions from furnace *x* due to dross, concentrate, and salt cake charged in tons/month;

S_{O_x} = Stack PM, PM_{10} or $PM_{2.5}$ emissions from furnace *x* due to all other material charged in tons/month;

F_{O_x} = Fugitive PM, PM_{10} or $PM_{2.5}$ emissions from furnace *x* due to all other material charged in tons/month;

A = Total number of active furnaces during the month;

M_{PM} = Total PM, PM_{10} or $PM_{2.5}$ emissions for the month for each furnace, averaged between the furnaces, in tons of PM, PM_{10} or $PM_{2.5}$/month;

n = month;

M_{PM_n} = Total PM, PM_{10} or $PM_{2.5}$ average emissions for month *n* for each furnace, in tons of PM, PM_{10} or $PM_{2.5}$/month;

T_{PM} = Total 12-month rolling PM, PM_{10} or $PM_{2.5}$ emissions for each furnace, in tons/yr.

Note: To calculate fugitive emissions, the permittee shall multiply the stack emissions by 0.0101, the ratio of fugitive emissions to stack emissions.

B. Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

d. The permittee must comply at all times with each applicable limit in 40 CFR 63.1505, including periods of startup and shutdown. Table 1 to 40 CFR 63, Subpart RRR summarizes the emission standards for each type of source. [40 CFR 63.1505(a)]

e. The permittee of a group 1 furnace shall not exceed the limits in 40 CFR 63.1505(i) to determine the emission standards for a SAPU: [40 CFR 63.1505(i)]

i. 0.20 kg of PM per Mg (0.40 lb of PM per ton) of feed/charge; [40 CFR 63.1505(i)(1)]

ii. 15 μg of D/F TEQ per Mg ($2.1 \times 10{-}4$ gr of D/F TEQ per ton) of feed/charge; and [40 CFR 63.1505(i)(3)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. 0.20 kg of HCl per Mg (0.40 lb of HCl per ton) of feed/charge or, if the furnace is equipped with an add-on air pollution control device, 10 percent of the uncontrolled HCl emissions, by weight. [40 CFR 63.1505(i)(4)]

iv. The permittee must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option. [40 CFR 63.1505(i)(5)]

v. The permittee may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of feed/charge. [40 CFR 63.1505(i)(6)]

Compliance Demonstration Method:

A. *PM and HCl emission limits.* Use Equation 7 to determine compliance with an emission limit for PM or HCl. [40 CFR 63.1513(b)(1)]

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

Where:
E = Emission rate of PM or HCl, kg/Mg (lb/ton) of feed;
C = Concentration of PM or HCl, g/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
K_1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
P = Production rate, Mg/hr (ton/hr).

B. *D/F emission limits*. Use Equation 7A to determine compliance with an emission limit for D/F. [40 CFR 63.1513(b)(2)]

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

Where:
E = Emission rate of D/F, µg/Mg (gr/ton) of feed;
C = Concentration of D/F, µg/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr); and
P = Production rate, Mg/hr (ton/hr).

C. *Periods of startup and shutdown*: For a new or existing affected source, or a new or existing emission unit subject to an emissions limit in 40 CFR 63.1505(b) through (j) expressed in units of pounds per ton of feed/charge, or µg TEQ or ng TEQ per Mg of feed/charge, demonstrate compliance during periods of startup and shutdown in accordance 40 CFR 63.1513(f)(1) or determine the emissions per unit of feed/charge during periods of startup and shutdown in accordance with 40 CFR 63.1513(f)(2). [40 CFR 63.1513(f)]

I. For periods of startup and shutdown, records establishing a feed/charge rate of zero, a flux rate of zero, and that the affected source or emission unit was either heated with electricity, propane or natural gas as the sole sources of heat or was not heated, may be used to demonstrate compliance with the emission limit, or [40 CFR 63.1513(f)(1)]

II. For periods of startup and shutdown, divide the measured emissions in lb/hr or µg/hr or ng/hr by the feed/charge rate in tons/hr or Mg/hr from the most recent

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data are available. [40 CFR 63.1513(f)(2)]

D. Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements** and **6. Specific Reporting. Requirements**.

f. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

Compliance Demonstration Method:
Compliance is assumed when meeting the requirements of 40 CFR 63, Subpart RRR in **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

g. For emissions from a control device or stack, no person shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]

i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr
ii. For process weight rates up to 30 tons/hr: $E=3.59P^{0.62}$
Where:
E = the allowable PM emissions rate (lbs/hr)
P = the process weight rate (tons/hr)

Compliance Demonstration Method:
Compliance is assumed when complying with the PM emission standard under 40 CFR 63, Subpart RRR.

h. Refer to **SECTION D** for SAPU calculations.

Compliance Demonstration Method:
If the permittee cannot or chooses not to demonstrate compliance with the limits in **2. Emission Limitations (a)** on an individual basis, the permittee shall comply with the SAPU emission limits calculated using the equations in 40 CFR 63.1505(k) referenced in **SECTION D.3**. Initial compliance with the SAPU emission limits during the performance test shall be demonstrated by using the equations in 40 CFR 63.1513(e) referenced in the **Compliance Demonstration Method** for **SECTION D.3**. Continuous compliance with the calculated SAPU emission limits shall be demonstrated by calculating and recording the 3-day rolling 24-hour average emissions for the SAPU using the equations in 40 CFR 63.1510(t).

3. Testing Requirements:

a. The permittee shall conduct testing for CO emissions from each furnace (EU13 and EU14) no later than December 31, 2023. Thereafter, the permittee shall conduct testing for CO emissions from one of the furnaces (EU13 or EU14) once every 5 years, no

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

sooner than three and a half years (44 months) and no more than five years (60 months) from the most recent test for CO emissions. The furnace tested in each five year period shall alternate each time, i.e. if EU13 is tested, then EU14 shall be tested within the following five year period. The permittee shall: [401 KAR 50:055]

i. Conduct testing for CO emissions for the worst case operating scenario, i.e. most organically contaminated charge or other scenario that may maximize CO emissions, to demonstrate compliance with 401 KAR 51:017 emission limitations.
ii. Conduct testing for CO emissions due to the processing of dross, concentrate, and salt cake charged in order to establish the emission factor for this material.
iii. Use both test results to demonstrate that emissions from these units will not exceed the limits for CO in **2. Emission limitations.**
iv. Conduct testing in accordance with U.S. EPA Reference Method 10 or other Division approved method. Each test shall encompass a complete melting cycle.
v. Conduct an additional test(s) within each five year cycle if the composition of scrap charge changes significantly from the composition of the original tested batches.

b. The permittee shall conduct testing for VOC emissions from each furnace (EU13 and EU14) no later than December 31, 2023. Thereafter, the permittee shall conduct performance testing for VOC emissions from one of the furnaces (EU13 or EU14) once every 5 years, no sooner than three and a half years (44 months) and no more than five years (60 months) from the most recent test for VOC emissions. The furnace tested in each five year period shall alternate each time, i.e. if EU13 is tested, then EU14 shall be tested within the following five year period. The permittee shall: [401 KAR 50:055]

i. Conduct testing for VOC for the worst case operating scenario, i.e. most organically contaminated charge or other scenario that may maximize VOC emissions, to demonstrate compliance with the emission limits established to preclude 401 KAR 51:017.
ii. Conduct testing for VOC emissions due to processing of dross, concentrate, and salt cake in order to establish an emission factor for this material.
iii. Use both test results to demonstrate emissions from these units will not exceed the limits for VOC in **2. Emission limitations.**
iv. Conduct testing in accordance with U.S. EPA Reference Method 25A, or other Division approved method. Each test shall encompass a complete melting cycle.
v. Conduct an additional test(s) within each five year cycle if the composition of scrap charge changes significantly from the composition of the original tested batches.

c. The permittee shall conduct testing for PM, PM_{10} and $PM_{2.5}$ emissions from each furnace (EU13 and EU14) no later than December 31, 2023. Thereafter, the permittee shall conduct performance testing for PM, PM_{10} and $PM_{2.5}$ emissions from one of the furnaces (EU13 or EU14) once every 5 years, no sooner than three and a half years (44 months) and no more than five years (60 months) from the most recent test for PM, PM_{10} and $PM_{2.5}$ emissions. The furnace tested in each five year period shall alternate each time, i.e. if EU13 is tested, then EU14 shall be tested within the following five year period. The permittee shall: [401 KAR 50:055]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

i. Conduct testing for PM, PM_{10} and $PM_{2.5}$ emissions for the worst case operating scenario to demonstrate compliance with the emission limits established to preclude 401 KAR 51:017 in **2. Emission limitations.**
ii. Conduct testing in accordance with U.S. EPA Reference Methods 5, 201A and 202, or other Division approved methods, each test shall encompass a complete melting cycle.
iii. Perform testing to establish throughput-based emission factors for PM_{10} and $PM_{2.5}$ on a furnace as representative for both furnaces.
iv. Perform testing to establish the throughput-based emission factor for PM on each furnace unless the furnace meets the requirements of 40 CFR 63.1511(f), *Testing of representative emission units* and the permittee applies for a variance from the Division.

d. Prior to conducting any performance test required by 40 CFR 63, Subpart RRR, the permittee must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in 40 CFR 63.7. Performance tests shall be conducted under such conditions as the Administrator specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1511(a)]

e. The permittee must conduct each performance test in accordance with the requirements and procedures set forth in 40 CFR 63.7(c). [40 CFR 63.1511(b)]
   i. The performance tests must be conducted under representative conditions expected to produce the highest level of HAP emissions expressed in the units of the emission standards for the HAP (considering the extent of feed/charge contamination, reactive flux addition rate and feed/charge rate). If a single test condition is not expected to produce the highest level of emissions for all HAP, testing under two or more sets of conditions (for example high contamination at low feed/charge rate, and low contamination at high feed/charge rate) may be required. Any subsequent performance tests for the purposes of establishing new or revised parametric limits shall be allowed upon pre-approval from the Division. These new parametric settings shall be used to demonstrate compliance for the period being tested. [40 CFR 63.1511(b)(1)]
   ii. 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. [40 CFR 63.1511(b)(2)]
   iii. 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. [40 CFR 63.1511(b)(4)]
   iv. 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. [40 CFR 63.1511(b)(5)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

v. Apply 40 CFR 63.1511(b)(1) through (5) for each pollutant separately if a different production rate or charge material would apply and thereby result in a higher expected emissions rate for that pollutant. [40 CFR 63.1511(b)(6)]
vi. The permittee may not conduct performance tests during periods of malfunction. [40 CFR 63.1511(b)(7)]

f. The permittee must use the following methods in Appendix A to 40 CFR Part 60 to determine compliance with the applicable emission limits or standards: [40 CFR 63.1511(c)]
   i. Method 1 for sample and velocity traverses. [40 CFR 63.1511(c)(1)]
   ii. Method 2 for velocity and volumetric flow rate. [40 CFR 63.1511(c)(2)]
   iii. Method 3 for gas analysis. [40 CFR 63.1511(c)(3)]
   iv. Method 4 for moisture content of the stack gas. [40 CFR 63.1511(c)(4)]
   v. Method 5 for the concentration of PM. [40 CFR 63.1511(c)(5)]
   vi. Method 23 for the concentration of D/F. [40 CFR 63.1511(c)(7)]
   vii. Method 26A for the concentration of HCl. Method 26 may also be used, except at sources where entrained water droplets are present in the emission stream. Where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the permittee must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system. [40 CFR 63.1511(c)(9)]

g. The permittee may use an alternative test methods as provided in 40 CFR 63.1511(d)(1) through (3). [40 CFR 63.1511(d)(3)]

h. The permittee must conduct a performance test every 5 years following the initial performance test. [40 CFR 63.1511(e)]

i. The permittee must 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 must use the appropriate procedures in 40 CFR 63.1511 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 Division. [40 CFR 63.1511(g)]
   i. The complete emission test report(s) used as the basis of the parameter(s) is submitted. [40 CFR 63.1511(g)(1)]
   ii. The same test methods and procedures as required by 40 CFR 63, Subpart RRR were used in the test. [40 CFR 63.1511(g)(2)]
   iii. 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. [40 CFR 63.1511(g)(3)]
   iv. All process and control equipment operating parameters required to be monitored were monitored as required in 40 CFR 63, Subpart RRR and documented in the test report. [40 CFR 63.1511(g)(4)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

v. If the permittee wants to conduct a new performance test and establish different operating parameter values, they must submit a revised site specific test plan and receive approval in accordance with 40 CFR 63.1511(a). In addition to the results of the new performance test to establish operating parameter values, they must meet the requirements of 40 CFR 63.1511(g)(1) through (g)(4). [40 CFR 63.1511(g)(5)]

j. The permittee must conduct performance tests to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard). [40 CFR 63.1512(d)(1)]

k. The permittee may choose to determine the rate of reactive flux addition to the group 1 furnace and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the group 1 furnace is emitted. Under these circumstances, the permittee is not required to conduct an emission test for HCl. [40 CFR 63.1512(d)(3)]

l. *Secondary aluminum processing unit*. The permittee must conduct performance tests as described in 40 CFR 63.1512(j)(1) through (3). The results of the performance tests are used to establish emission rates in lb/ton of feed/charge for PM, HCl and HF and µg TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in 40 CFR 63.1510(t). A performance test is required for: [40 CFR 63.1512(j)]
   i. Each group 1 furnace that processes scrap other than clean charge to measure emissions of PM and D/F and either: [40 CFR 63.1512(j)(2)]
      1) Emissions of HF and HCl (for determining the emission limit); or [40 CFR 63.1512(j)(2)(i)]
      2) The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard). [40 CFR 63.1512(j)(2)(ii)]

m. During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the permittee of an affected source or emission unit, subject to an emission limit in a kg/Mg (lb/ton) of feed/charge format, must measure (or otherwise determine) and record the total weight of feed/charge to the affected source or emission unit for each of the three test runs and calculate and record the total weight. A permittee that chooses to demonstrate compliance on the basis of the aluminum production weight must measure the weight of aluminum produced by the emission unit or affected source instead of the feed/charge weight. [40 CFR 63.1512(k)]

n. The permittee of an affected source or emission unit using a continuous opacity monitoring system must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in appendix B to 40 CFR part 60. Following the performance evaluation, the permittee must measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(l)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

o. The permittee of a group 1 furnace using a lime-injected fabric filter must use these procedures to establish an operating parameter value or range for the inlet gas temperature. [40 CFR 63.1512(n)]
   i. Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests: [40 CFR 63.1512(n)(1)]
   ii. Determine and record the 15-minute block average temperatures for the 3 test runs; and [40 CFR 63.1512(n)(2)]
   iii. Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs. [40 CFR 63.1512(n)(3)]

p. The permittee must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate: [40 CFR 63.1512(o)]
   i. Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the HCl and D/F tests, determine and record the 15-minute block average weights, and calculate and record the total weight of the gaseous or liquid reactive flux for the 3 test runs; [40 CFR 63.1512(o)(1)]
   ii. Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs; [40 CFR 63.1512(o)(2)]
   iii. 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: [40 CFR 63.1512(o)(3)]

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

   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;
   iv. 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 [40 CFR 63.1512(o)(4)]
   v. If a solid reactive flux other than magnesium chloride is used, the permittee must derive the appropriate proportion factor subject to approval by the applicable permitting authority. [40 CFR 63.1512(o)(5)]

q. The permittee of an affected source or emission unit using a lime-injected fabric filter system must use these procedures during the HCl and D/F tests to establish an operating parameter value for the feeder setting for each operating cycle or time period used in the performance test. [40 CFR 63.1512(p)]
   i. For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and [40 CFR 63.1512(p)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. Record the feeder setting and lime injection rate for the 3 test runs. If the feed rate setting and lime injection rates vary between the runs, determine and record the average feed rate and lime injection rate from the 3 runs. [40 CFR 63.1512(p)(2)]

r. To convert D/F measurements to TEQ units, the permittee must use the procedures and equations in Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update (EPA–625/3–89–016), incorporated by reference. Refer to 40 CFR 63.14 [40 CFR 63.1513(d)]

s. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

a. The permittee must monitor all control equipment and processes according to the requirements in 40 CFR 63.1510. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to 40 CFR 63, Subpart RRR. [40 CFR 63.1510(a)]

b. The permittee shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan. Refer to **1. Operating Limitations (h)** and **6. Specific Reporting Requirements (a)**, for OM&M plan requirements. [40 CFR 63.1510(b)]

c. The permittee must inspect the labels for each group 1 furnace 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. [40 CFR 63.1510(c)]

d. The permittee shall: [40 CFR 63.1510(d)]
   i. Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and [40 CFR 63.1510(d)(1)]
   ii. Inspect the 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)(2)]
   iii. Meet the requirements in **SECTION E**.

e. The permittee must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the permittee may use a procedure acceptable to the Division to determine the total weight of feed/charge or aluminum production to the affected source or emission unit. [40 CFR 63.1510(e)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

i. The accuracy of the weight measurement device or procedure must be ±1 percent of the weight being measured. The permittee may apply to the Division 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 permittee provides assurance through data and information that the affected source will meet the relevant emission standard. [40 CFR 63.1510(e)(1)]

ii. 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 63.1510(e)(2)]

f. These requirements apply to the permittee of a group 1 furnace (with or without add-on air pollution control devices). The permittee must: [40 CFR 63.1510(j)]

i. Install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to each affected source or emission unit. [40 CFR 63.1510(j)(1)]

1) The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test. [40 CFR 63.1510(j)(1)(i)]

2) The accuracy of the weight measurement device must be ±1 percent of the permittee may apply to the Division for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of ±1 percent impracticable. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standards. [40 CFR 63.1510(j)(1)(ii)]

3) 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 63.1510(j)(1)(iii)]

ii. 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). [40 CFR 63.1510(j)(2)]

iii. 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: [40 CFR 63.1510(j)(3)]

1) Gaseous or liquid reactive flux other than chlorine; and [40 CFR 63.1510(j)(3)(i)]

2) Solid reactive flux. [40 CFR 63.1510(j)(3)(ii)]

iv. 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). For solid flux that is added intermittently, record the amount added for each operating cycle or time period used in the performance test using the procedures in 40 CFR 63.1512(o). [40 CFR 63.1510(j)(4)]

v. The permittee of a group 1 furnace or in-line fluxer performing reactive fluxing may apply to the Administrator for approval of an alternative method for monitoring and recording the total reactive flux addition rate based on monitoring the weight or quantity of reactive flux per ton of feed/charge for each operating cycle or time period

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

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. [40 CFR 63.1510(j)(5)]

g. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly throughput in tons;
   ii. The monthly natural gas usage in MMscf;
   iii. The monthly emissions of CO, VOC, PM, $PM_{10,}$ and $PM_{2.5}$ for each active furnace, and the 12-month rolling total for the same pollutant, for each active furnace, using the equations provided under **2. Emission Limitations**. The results of the equations shall be compared to the limits established for each pollutant.

h. Refer to **SECTION D.3.** for SAPU requirements.

i. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

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 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
   i. The permittee must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63.1517(a)(1)]
   ii. The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and [40 CFR 63.1517(a)(2)]
   iii. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]

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) must maintain records of: [40 CFR 63.1517(b)]
   i. For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter: [40 CFR 63.1517(b)(1)]
      1) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken. [40 CFR 63.1517(b)(1)(i)]
      2) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.1517(b)(1)(ii)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. For each group 1 furnace, subject to D/F and HCl emission standards with emissions controlled by a lime-injected fabric filter, records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14 °C (+25 °F), with a brief explanation of the cause of the excursion and the corrective action taken. [40 CFR 63.1517(b)(3)]

iii. For each affected source and emission unit with emissions controlled by a lime-injected fabric filter: [40 CFR 63.1517(b)(4)]

1) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken; [40 CFR 63.1517(b)(4)(i)]

2) If lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken. If a lime feeder has been repaired or replaced, this action must be documented along with records of the new feeder calibration and the feed mechanism set points necessary to maintain the lb/hr feed rate operating limit. These records must be maintained on site and available upon request. [40 CFR 63.1517(b)(4)(ii)]

iv. For each group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer, records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken. [40 CFR 63.1517(b)(5)]

v. For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]

vi. 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. [40 CFR 63.1517(b)(7)]

vii. Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements. [40 CFR 63.1517(b)(13)]

viii. Records of annual inspections of emission capture/collection and closed vent systems or, if the alternative to the annual flow rate measurements is used, records of differential pressure; fan RPM or fan motor amperage; static pressure measurements; or duct centerline velocity using a hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple, as appropriate. [40 CFR 63.1517(b)(14)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ix. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]

x. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including: [40 CFR 63.1517(b)(16)]
   1) OM&M plan; and[40 CFR 63.1517(b)(16)(ii)]
   2) Site-specific secondary aluminum processing unit emission plan (as applicable). [40 CFR 63.1517(b)(16)(iii)]

xi. For each secondary aluminum processing unit, records of total charge weight, or if the permittee 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. [40 CFR 63.1517(b)(17)]

xii. For any failure to meet an applicable standard, the permittee must maintain the following records; [40 CFR 63.1517(b)(18)]
   1) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken. [40 CFR 63.1517(b)(18)(i)]
   2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.1517(b)(18)(ii)]

xiii. For each period of startup or shutdown for which the permittee chooses to demonstrate compliance for an affected source, the permittee must comply with 40 CFR 63.1517(b)(19)(i) or (ii). [40 CFR 63.1517(b)(19)]
   1) To demonstrate compliance based on a feed/charge rate of zero, a flux rate of zero and the use of electricity, propane or natural gas as the sole sources of heating or the lack of heating, the permittee must submit a semiannual report in accordance with 40 CFR 63.1516(b)(2)(vii) or maintain the following records: [40 CFR 63.1517(b)(19)(i)]
      A. The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(i)(A)]
      B. The quantities of feed/charge and flux introduced during each startup and shutdown; and [40 CFR 63.1517(b)(19)(i)(B)]
      C. The types of fuel used to heat the unit, or that no fuel was used, during startup and shutdown; or [40 CFR 63.1517(b)(19)(i)(C)]
   2) To demonstrate compliance based on performance tests, the permittee must maintain the following records: [40 CFR 63.1517(b)(19)(ii)]
      A. The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(ii)(A)]
      B. The measured emission in lb/hr or µg/hr or ng/hr; [40 CFR 63.1517(b)(19)(ii(B)]
      C. The measured feed/charge rate in tons/hr or Mg/hr from the most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data is available; and [40 CFR 63.1517(b)(19)(ii)(C)]
      D. An explanation to support that such conditions are considered representative startup and shutdown operations. [40 CFR 63.1517(b)(19)(ii)(D)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly throughput in tons;
   ii. The monthly natural gas usage in MMscf;
   iii. The monthly calculated emissions of CO, VOC, PM, $PM_{10,}$ and $PM_{2.5}$ for each active furnace, and the 12-month rolling total for the same pollutant, for each active furnace, using the equations provided under **2. Emission Limitations** and the results comparing the calculated values to the limits established for each pollutant.

d. Refer to **SECTION D.3.** for SAPU requirements.

e. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

a. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]
   i. If the Division 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 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.
   ii. 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 Division.

b. Within the OM&M plan prepared in accordance with 40 CFR 63.1510(b), the permittee shall include the following information: [40 CFR 63.1510(s)(1)]
   i. The identification of each emission unit in the SAPU; [40 CFR 63.1510(s)(1)(i)]
   ii. The specific control technology or pollution prevention measure to be used for each emission unit in the SAPU and the date of its installation or application; [40 CFR 63.1510(s)(1)(ii)]
   iii. The emission limit calculated for each SAPU and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit; [40 CFR 63.1510(s)(1)(iii)]
   iv. Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of 40 CFR 63, Subpart RRR; and [40 CFR 63.1510(s)(1)(iv)]
   v. The monitoring requirements applicable to each emission unit in a SAPU and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t). [40 CFR 63.1510(s)(1)(v)]

c. The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions: [40 CFR 63.1510(s)(2)]
   i. Any averaging among emissions of differing pollutants; [40 CFR 63.1510(s)(2)(i)]
   ii. The inclusion of any affected sources other than emission units in a secondary aluminum processing unit; [40 CFR 63.1510(s)(2)(ii)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. The inclusion of any emission unit while it is shutdown; or [40 CFR 63.1510(s)(2)(iii)]
iv. The inclusion of any periods of startup or shutdown in emission calculations. [40 CFR 63.1510(s)(2)(iv)]

d. To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the permittee shall submit a request to the Division containing the information required by 40 CFR 63.1510(s)(1), above, and obtain approval of the Division prior to implementing any revisions. [40 CFR 63.1510(s)(3)]

e. Except as provided in 40 CFR 63.1510(u), the permittee shall calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F for each secondary aluminum processing unit (SAPU) on a daily basis. [40 CFR 63.1510(t)]

f. As an alternative to the procedures of 40 CFR 63.1510(t), the permittee may demonstrate, through performance tests, that each individual emission unit within the secondary aluminum production unit (SAPU) is in compliance with the applicable emission limits for the emission unit. [40 CFR 63.1510(u)]

g. If the permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR 63.1510(j)(5) and 40 CFR 63.1510(v), the permittee may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in 40 CFR 63.1510(w)(1) through (6). [40 CFR 63.1510(w)]

h. As required by 40 CFR 63.9(e) and (f), the permittee must provide notification of the anticipated date for conducting performance tests and visible emission observations. The permittee must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place. [40 CFR 63.1515(a)(6)]

i. As required by 40 CFR 63.9(g), the permittee must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems. [40 CFR 63.1515(a)(7)]

j. The permittee must 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. [40 CFR 63.1516(b)]
   i. A report must be submitted if any of these conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]
      1) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(i)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2) The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(ii)]
3) 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). [40 CFR 63.1516(b)(1)(iv)]
4) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
5) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit. [40 CFR 63.1516(b)(1)(vii)]

ii. Each report must include the following certification, as applicable: [40 CFR 63.1516(b)(2)]
1) For each affected source choosing to demonstrate compliance during periods of startup and shutdown in accordance with 40 CFR 63.1513(f)(1): "During each startup and shutdown, no flux and no feed/charge were added to the emission unit, and electricity, propane or natural gas were used as the sole source of heat or the emission unit was not heated." [40 CFR 63.1516(b)(2)(vii)]

iii. The permittee must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested. [40 CFR 63.1516(b)(3)]
1) Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.2) required by 40 CFR 63, Subpart RRR, the permittee must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either 40 CFR 63.1516(b)(3)(i)(A) or (B) [40 CFR 63.1516(b)(3)(i)]

iv. A malfunction report that is required under 40 CFR 63.1516(d) shall be submitted simultaneously with the semiannual excess emissions/summary report required by 40 CFR 63.1516(b). [40 CFR 63.1516(b)(4)]

k. For the purpose of annual certifications of compliance required by 40 CFR Part 70, the permittee must certify continuing compliance based upon, but not limited to, the following conditions: [40 CFR 63.1516(c)]
i. Any period of excess emissions, as defined in 40 CFR 63.1516(b)(1), that occurred during the year were reported as required by 40 CFR 63, Subpart RRR; and [40 CFR 63.1516(c)(1)]
ii. All monitoring, recordkeeping, and reporting requirements were met during the year. [40 CFR 63.1516(c)(2)]

l. If there was a malfunction during the reporting period, the permittee must submit a report that includes the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken for each malfunction which occurred

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must include a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions, including, but not limited to, product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.1506(a)(5). [40 CFR 63.1516(d)]

m. All reports required by 40 CFR 63, Subpart RRR not subject to the requirements in 40 CFR 63.1516(b) must be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the permittee of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to 40 CFR 63.1516(b) in paper format. [40 CFR 63.1516(e)]

n. Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Requirements

a. The permittee of an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR must install, calibrate, maintain, and continuously operate a bag leak detection system as required in 40 CFR 63.1510(f)(1) or a continuous opacity monitoring system as required in 40 CFR 63.1510(f)(2). [40 CFR 63.1510(f)]

i. These requirements apply to the permittee of a new or existing affected source or existing emission unit using a bag leak detection system: [40 CFR 63.1510(f)(1)]

1) The permittee must install and operate a bag leak detection system for each exhaust stack of a fabric filter. [40 CFR 63.1510(f)(1)(i)]
2) Each bag leak detection system must be installed, calibrated, operated, and maintained according to manufacturer's operating instructions. [40 CFR 63.1510(f)(1)(ii)]
3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.1510(f)(1)(iii)]
4) The bag leak detection system sensor must provide output of relative or absolute PM loadings. [40 CFR 63.1510(f)(1)(iv)]
5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor. [40 CFR 63.1510(f)(1)(v)]
6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. [40 CFR 63.1510(f)(1)(vi)]
7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

air fabric filters, the bag leak detector must be installed downstream of the fabric filter. [40 CFR 63.1510(f)(1)(vii)]

8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.1510(f)(1)(viii)]
9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.1510(f)(1)(ix)]
10) Following initial adjustment of the system, the permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. [40 CFR 63.1510(f)(1)(x)]

ii. These requirements apply to the permittee of a new or existing affected source or an existing emission unit using a continuous opacity monitoring system. [40 CFR 63.1510(f)(2)]
1) The permittee must install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack. [40 CFR 63.1510(f)(2)(i)]
2) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in appendix B to 40 CFR part 60. [40 CFR 63.1510(f)(2)(ii)]

b. These requirements apply to the permittee of a group 1 furnace using a lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(h)]
i. 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 subpart A of part 63. [40 CFR 63.1510(h)(1)]
ii. The temperature monitoring device must meet each of these performance and equipment specifications: [40 CFR 63.1510(h)(2)]
1) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period. [40 CFR 63.1510(h)(2)(i)]
2) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(n). [40 CFR 63.1510(h)(2)(ii)]
3) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator. [40 CFR 63.1510(h)(2)(iii)]

c. These requirements apply to the permittee of an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(i)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

i. The permittee of a continuous lime injection system must verify that lime is always free-flowing by either: [40 CFR 63.1510(i)(1)]
   1) Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the permittee must 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 [40 CFR 63.1510(i)(1)(i)]
   2) Subject to the approval of the Division, 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 must promptly initiate and complete corrective action, or [40 CFR 63.1510(i)(1)(ii)]
   3) Subject to the approval of the Division, 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 must promptly initiate and complete corrective action. [40 CFR 63.1510(i)(1)(iii)]

ii. The permittee of a continuous lime injection system must record the lime feeder setting once each day of operation. [40 CFR 63.1510(i)(2)]

iii. A permittee who intermittently adds lime to a lime-injected fabric filter must obtain approval from the Division for a lime addition monitoring procedure. The Division will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis. [40 CFR 63.1510(i)(3)]

iv. At least once per month, verify that the lime injection rate in pounds per hour (lb/hr) is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. If the monthly check of the lime injection rate is below the 90 percent, the permittee must repair or adjust the lime injection system to restore normal operation within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to demonstrate that the lime injection rate is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. In the event that a lime feeder is repaired or replaced, the feeder must be calibrated, and the feed rate must be restored to the lb/hr feed rate operating limit established during the most recent performance test within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to complete the repair or replacement and establishing a new setting. The repair or replacement, and the establishment of the new feeder setting(s) must be documented in accordance with the recordkeeping requirements of 40 CFR 63.1517. [40 CFR 63.1510(i)(4)]

d. The control devices associated with the emission units listed above shall be properly maintained, used in conjunction with operation of the associated emission unit, and operated consistent with the manufacturer's specifications. [401 KAR 52:020, Section 10]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 16 (EU16) Shredder System

Description: A coated aluminum scrap shredder system consisting of a hammermill shredder and shredded scrap processing operations (a two pass air knife, an *Accumulator* hopper, cross belt magnet, drum magnet, conveyors, and transfer points). The overall maximum capacity for this system is bottlenecked by the maximum input capacity of the downstream Delacquering Furnace (EU02). This unit is considered an aluminum scrap shredder under 40 CFR 63, Subpart RRR.

Maximum Capacity: 12.04 tons/hr
Control Device: Baghouse
Construction Commenced: 2013

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations
401 KAR 63:002, Section 2(4)(ccc) 40 C.F.R. 63.1500 to 63.1519, Tables 1 to 3, and Appendix A (Subpart RRR), *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*

PRECLUDED REGULATION:
401 KAR 51:017, Prevention of significant deterioration of air quality

1. **Operating Limitations:**
   a. The hammermill shredder shall not operate when the Secondary Shredder (EU22) is discharging material to the shredded scrap processing operations. [To preclude 401 KAR 51:017]

      Compliance Demonstration Method:
      Maintaining and recording through process operation logs.

   b. The permittee shall not exceed 288.96 tons of aluminum processed through the shredder system per day, based on a monthly average. [To preclude 401 KAR 51:017]

      Compliance Demonstration Method:
      The permittee shall monitor the monthly input, divide it by the number of days in the month, and compare the resultant average tonnage per day to the limit. Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

   c. In the buildings that house EU16, the permittee shall not operate external exhaust fans that vent to the atmosphere rather than a baghouse. [To preclude 401 KAR 51:017]

      Compliance Demonstration Method:
      Compliance is demonstrated through compliance with 40 CFR 63.1506(c) and recordkeeping in accordance with **5. Specific Recordkeeping Requirements**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. A weight measurement system, or other weight determination procedure, must be operated, or conducted (as applicable), in accordance with the OM&M plan. [401 KAR 52:020, Section 10]

Compliance Demonstration Method:
Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

e. The permittee must operate all new and existing affected sources and control equipment according to the requirements in 40 CFR 63.1506. [40 CFR 63.1506(a)(1)]

f. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1506(a)(5)]

g. For each affected source or emission unit equipped with an add-on air pollution control device, the permittee must: [40 CFR 63.1506(c)]
   i. Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, refer to 40 CFR 63.14); [40 CFR 63.1506(c)(1)]
   ii. 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 [40 CFR 63.1506(c)(2)]
   iii. Operate each capture/collection system according to the procedures and requirements in the OM&M plan. [40 CFR 63.1506(c)(3)]

h. The permittee of a scrap shredder with emissions controlled by a fabric filter must operate a bag leak detection system, or a continuous opacity monitor, or conduct visible emissions observations. [40 CFR 63.1506(e)]
   i. If a bag leak detection system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must: [40 CFR 63.1506(e)(1)]
      1) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(e)(1)(i)]
      2) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the permittee takes longer than 1 hour to initiate corrective

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

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(e)(1)(ii)]

ii. If a continuous opacity monitoring system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(e)(2)]

iii. If visible emission observations are used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must initiate corrective action within 1-hour of any observation of visible emissions during a daily visible emissions test and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(e)(3)]

i. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]

j. The permittee shall prepare and implement for each new or existing emission unit, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (a)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]

i. 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. [40 CFR 63.1510(b)(1)]

ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]

iii. 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)]

iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
2) 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. [40 CFR 63.1510(b)(4)(ii)]

v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]

vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]
2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]

vii. 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)]

Compliance Demonstration Method:
Refer to **3. Specific Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

2. Emission Limitations:

a. The permittee must comply at all times with each applicable limit in 40 CFR 63.1505, including periods of startup and shutdown. Table 1 to 40 CFR 63, Subpart RRR summarizes the emission standards for each type of source. [40 CFR 63.1505(a)]

b. The permittee shall not discharge or cause to be discharged to the atmosphere: [40 CFR 63.1505(b)]
i. Emissions in excess of 0.023 grams (g) of PM per dry standard cubic meter (dscm) (0.010 grain (gr) of PM per dry standard cubic foot (dscf)); and [40 CFR 63.1505(b)(1)]
ii. Visible emissions (VE) in excess of 10 percent opacity from any PM add-on air pollution control device if a continuous opacity monitor (COM) or visible emissions monitoring is chosen as the monitoring option. [40 CFR 63.1505(b)(2)]

Compliance Demonstration:
Refer to **3. Testing Requirements, 4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements**, **6. Specific Reporting Requirements**, and **7. Specific Control Equipment Requirements.**

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

Compliance Demonstration Method:
Compliance is assumed when meeting the requirements of 40 CFR 63, Subpart RRR in **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, **6. Specific Reporting Requirements**, and **7. Specific Control Equipment Requirements.**

d. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]

i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr
ii. For process weight rates up to 30.00 tons/hr: $E=3.59P^{0.62}$

Where:
E = the allowable PM emissions rate (lbs/hr)
P = the process weight rate (tons/hr)

Compliance Demonstration Method:
Compliance is assumed when complying with the PM emission standard under 40 CFR 63, Subpart RRR.

e. The permittee shall not exceed 1.28 tons/yr of PM, PM_{10} and $PM_{2.5}$, each, on a 12-month rolling basis. [To preclude 401 KAR 51:017]

Compliance Demonstration Method:

A. To demonstrate compliance with each emission limitation, the permittee shall use the following equations to individually calculate PM, PM_{10}, and $PM_{2.5}$ emissions each month:

$$M_{PM_i} = \frac{EF_{PM} \times P_i}{2000} + \frac{EF_{PM} \times 0.5051 \times P_i}{2000}$$

And

$$T_{PM} = \sum_{i=1}^{12} M_{PM_i}$$

Where:
M_{PM_i} = The monthly emissions for each type of PM (i.e. PM, $PM_{2.5}$, PM_{10}) during month *i* in tons/month;
EF_{PM} = Stack Emission Factor for each type of PM established during the most recent stack test in lb/ton;
P_i = The monthly throughput in month *i*, in tons;
0.5051 = The ratio of fugitive to stack emissions
T_{PM} = The total 12-month rolling emissions of each type of PM, in tons.

B. Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements** and **6. Specific Reporting Requirements**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

a. Prior to conducting any performance test required by 40 CFR 63, Subpart RRR, the permittee must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in 40 CFR 63.7. Performance tests shall be conducted under such conditions as the Administrator specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1511(a)]

b. Following approval of the site-specific test plan, the permittee must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in 40 CFR 63.1515(b). The permittee must conduct the initial performance test within 180 days after the date for compliance established by 40 CFR 63.1501. Except for the date by which the performance test must be conducted, the permittee must conduct each performance test in accordance with the requirements and procedures set forth in 40 CFR 63.7(c). [40 CFR 63.1511(b)]

   i. The performance tests must be conducted under representative conditions expected to produce the highest level of HAP emissions expressed in the units of the emission standards for the HAP (considering the extent of feed/charge contamination, reactive flux addition rate and feed/charge rate). If a single test condition is not expected to produce the highest level of emissions for all HAP, testing under two or more sets of conditions (for example high contamination at low feed/charge rate, and low contamination at high feed/charge rate) may be required. Any subsequent performance tests for the purposes of establishing new or revised parametric limits shall be allowed upon pre-approval from the Division. These new parametric settings shall be used to demonstrate compliance for the period being tested. [40 CFR 63.1511(b)(1)]

   ii. 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. [40 CFR 63.1511(b)(2)]

   iii. 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. [40 CFR 63.1511(b)(4)]

   iv. 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. [40 CFR 63.1511(b)(5)]

   v. Apply 40 CFR 63.1511(b)(1) through (5) for each pollutant separately if a different production rate or charge material would apply and thereby result in a higher expected emissions rate for that pollutant. [40 CFR 63.1511(b)(6)]

   vi. The permittee may not conduct performance tests during periods of malfunction. [40 CFR 63.1511(b)(7)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. The permittee must use the following methods in Appendix A to 40 CFR Part 60 to determine compliance with the applicable emission limits or standards: [40 CFR 63.1511(c)]
   i. Method 1 for sample and velocity traverses. [40 CFR 63.1511(c)(1)]
   ii. Method 2 for velocity and volumetric flow rate. [40 CFR 63.1511(c)(2)]
   iii. Method 3 for gas analysis. [40 CFR 63.1511(c)(3)]
   iv. Method 4 for moisture content of the stack gas. [40 CFR 63.1511(c)(4)]
   v. Method 5 for the concentration of PM. [40 CFR 63.1511(c)(5)]
   vi. Method 9 for visible emission observations. [40 CFR 63.1511(c)(6)]

d. The permittee may use alternative test methods as provided in 40 CFR 63.1511(d)(1) through (3). [40 CFR 63.1511(d)]
   i. The permittee may use test method ASTM D7520-13 as an alternative to EPA Method 9 subject to conditions described in 40 CFR 63.1510(f)(4). [40 CFR 63.1511(d)(1)]
   ii. In lieu of conducting the annual flow rate measurements using Methods 1 and 2, the permittee may use Method 204 in Appendix M to 40 CFR part 51 to conduct annual verification of a permanent total enclosure for the affected source/emission unit. [40 CFR 63.1511(d)(2)]
   iii. The permittee may use an alternative test method approved by the Administrator. [40 CFR 63.1511(d)(3)]

e. The permittee must conduct a performance test every 5 years following the initial performance test. [40 CFR 63.1511(e)]

f. The permittee must 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 must use the appropriate procedures in 40 CFR 63.1511 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 Division: [40 CFR 63.1511(g)]
   i. The complete emission test report(s) used as the basis of the parameter(s) is submitted. [40 CFR 63.1511(g)(1)]
   ii. The same test methods and procedures as required by 40 CFR 63, Subpart RRR were used in the test. [40 CFR 63.1511(g)(2)]
   iii. 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. [40 CFR 63.1511(g)(3)]
   iv. All process and control equipment operating parameters required to be monitored were monitored as required in 40 CFR 63, Subpart RRR and documented in the test report. [40 CFR 63.1511(g)(4)]
   v. If the permittee wants to conduct a new performance test and establish different operating parameter values, they must submit a revised site specific test plan and

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

receive approval in accordance with 40 CFR 63.1511(a). In addition, if the permittee wants to use existing data in addition to the results of the new performance test to establish operating parameter values, they must meet the requirements of 40 CFR 63.1511(g)(1) through (g)(4). [40 CFR 63.1511(g)(5)]

g. The permittee must conduct performance tests to measure PM emissions at the outlet of the control system. If visible emission observation is the selected monitoring option, the permittee must record visible emission observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test according to the requirements of Method 9 in Appendix A to 40 CFR Part 60. If emissions observations by ASTM Method D7520-13 (incorporated by reference, see 40 CFR 63.14) is the selected monitoring option, the permittee must record opacity observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(a)]

h. The permittee of an affected source or emission unit using a continuous opacity monitoring system must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in Appendix B to 40 CFR part 60. Following the performance evaluation, the permittee must measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(l)]

i. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

a. The permittee must monitor all control equipment and processes according to the requirements in 40 CFR 63.1510. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to 40 CFR 63, Subpart RRR. [40 CFR 63.1510(a)]

b. The permittee shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan. Refer to **1. Operating Limitations (j)** and **6. Specific Reporting Requirements (a)**, for OM&M plan requirements. [40 CFR 63.1510(b)]

c. The permittee shall: [40 CFR 63.1510(d)]
   i. Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and [40 CFR 63.1510(d)(1)]
   ii. Inspect the 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)(2)]
   iii. Meet the requirements in **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly tons of material processed;
   ii. The 24-hour rolling tons of material processed;
   iii. The monthly hours of operation; and
   iv. The monthly and 12-month rolling PM, PM_{10}, and $PM_{2.5}$ emissions, in tons.

e. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

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 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
   i. The permittee must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63.1517(a)(1)]
   ii. The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and [40 CFR 63.1517(a)(2)]
   iii. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]

b. In addition to the general records required by 40 CFR 63.10(b), the permittee must maintain records of: [40 CFR 63.1517(b)]
   i. For each affected source and emission unit with emissions controlled by a fabric filter: [40 CFR 63.1517(b)(1)]
      1) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken. [40 CFR 63.1517(b)(1)(i)]
      2) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.1517(b)(1)(ii)]
      3) If an aluminum scrap shredder is subject to visible emission observation requirements, records of all Method 9 observations, including records of any visible emissions during a 30-minute daily test or records of all ASTM D7520-13 observations (incorporated by reference, see 40 CFR 63.14), including data sheets and all raw unaltered JPEGs used for opacity determination, 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. [40 CFR 63.1517(b)(1)(iii)]
   ii. For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. Records of annual inspections of emission capture/collection and closed vent systems or, if the alternative to the annual flow rate measurements is used, records of differential pressure; fan RPM or fan motor amperage; static pressure measurement; or duct centerline velocity using a hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple, as appropriate. [40 CFR 63.1517(b)(14)]

iv. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]

v. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including the OM&M plan. [40 CFR 63.1517(b)(16)(ii)]

vi. For any failure to meet an applicable standard, the permittee must maintain the following records; [40 CFR 63.1517(b)(18)]

1) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken. [40 CFR 63.1517(b)(18)(i)]

2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.1517(b)(18)(ii)]

c. The permittee shall retain records of the following: [401 KAR 52:020, Section 10]

i. The monthly tons of material processed;

ii. The 24-hour rolling tons of material processed;

iii. The monthly hours of operation; and

iv. The monthly and 12-month rolling PM, PM_{10}, and $PM_{2.5}$ emissions, in tons.

d. Refer to **SECTION F** for general recordkeeping requirements.

6. <u>Specific Reporting Requirements</u>:

a. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]

i. If the Division 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 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.

ii. 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 Division.

b. If the permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR 63.1510(j)(5) and 40 CFR 63.1510(v), the permittee may submit an application to the

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Administrator. Any such application will be processed according to the criteria and procedures set forth in 40 CFR 63.1510(w)(1) through (6). [40 CFR 63.1510(w)]

c. As required by 40 CFR 63.9(e) and (f), the permittee must provide notification of the anticipated date for conducting performance tests and visible emission observations. The permittee must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place. [40 CFR 63.1515(a)(6)]

d. As required by 40 CFR 63.9(g), the permittee must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems. [40 CFR 63.1515(a)(7)]

e. 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. [40 CFR 63.1516(b)]
   i. A report must be submitted if any of these conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]
      1) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(i)]
      2) The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(ii)]
      3) The corrective action specified in the OM&M plan for visible emissions from an aluminum scrap shredder was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(iii)]
      4) An excursion of a compliant process or operating parameter value or range (*e.g.*, lime injection rate or screw feeder setting, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature, definition of acceptable scrap, or other approved operating parameter). [40 CFR 63.1516(b)(1)(iv)]
      5) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
   ii. The permittee must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested. [40 CFR 63.1516(b)(3)]
      1) Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.2) required by 40 CFR 63, Subpart RRR, the permittee must submit the results of the performance tests, including any associated fuel analyses,

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

following the procedure specified in either 40 CFR 63.1516(b)(3)(i)(A) or (B). [40 CFR 63.1516(b)(3)(i)]

iii. A malfunction report that is required under 40 CFR 63.1516(d) shall be submitted simultaneously with the semiannual excess emissions/summary report required by 40 CFR 63.1516(b). [40 CFR 63.1516(b)(4)]

f. For the purpose of annual certifications of compliance required by 40 CFR Part 70, the permittee must certify continuing compliance based upon, but not limited to, the following conditions: [40 CFR 63.1516(c)]

i. Any period of excess emissions, as defined in 40 CFR 63.1516(b)(1), that occurred during the year were reported as required by 40 CFR 63, Subpart RRR; and [40 CFR 63.1516(c)(1)]

ii. All monitoring, recordkeeping, and reporting requirements were met during the year. [40 CFR 63.1516(c)(2)]

g. If there was a malfunction during the reporting period, the permittee must submit a report that includes the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken for each malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must include a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions, including, but not limited to, product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.1506(a)(5). [40 CFR 63.1516(d)]

h. All reports required by 40 CFR 63, Subpart RRR not subject to the requirements in 40 CFR 63.1516(b) must be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the permittee of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to 40 CFR 63.1516(b) in paper format. [40 CFR 63.1516(e)]

i. Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Requirements:

a. The permittee of an aluminum scrap shredder must install and operate a bag leak detection system as required in 40 CFR 63.1510(f)(1), install and operate a continuous opacity monitoring system as required in 40 CFR 63.1510(f)(2), or conduct visible emission observations as required in 40 CFR 63.1510(f)(3). [40 CFR 63.1510(f)]

i. These requirements apply to the permittee of a new or existing affected source or existing emission unit using a bag leak detection system: [40 CFR 63.1510(f)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1) The permittee must install and operate a bag leak detection system for each exhaust stack of a fabric filter. [40 CFR 63.1510(f)(1)(i)]
2) Each bag leak detection system must be installed, calibrated, operated, and maintained according to manufacturer's operating instructions. [40 CFR 63.1510(f)(1)(ii)]
3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.1510(f)(1)(iii)]
4) The bag leak detection system sensor must provide output of relative or absolute PM loadings. [40 CFR 63.1510(f)(1)(iv)]
5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor. [40 CFR 63.1510(f)(1)(v)]
6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. [40 CFR 63.1510(f)(1)(vi)]
7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter. [40 CFR 63.1510(f)(1)(vii)]
8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.1510(f)(1)(viii)]
9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.1510(f)(1)(ix)]
10) Following initial adjustment of the system, the permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. [40 CFR 63.1510(f)(1)(x)]

ii. These requirements apply to the permittee of a new or existing affected source or an existing emission unit using a continuous opacity monitoring system. [40 CFR 63.1510(f)(2)]
1) The permittee must install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack. [40 CFR 63.1510(f)(2)(i)]
2) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in appendix B to 40 CFR part 60. [40 CFR 63.1510(f)(2)(ii)]

iii. These requirements apply to the permittee of a new or existing aluminum scrap shredder who conducts visible emission observations. The permittee must: [40 CFR 63.1510(f)(3)]
1) Perform a visible emissions test for each aluminum scrap shredder using a certified observer at least once a day according to the requirements of Method 9 in

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

appendix A to 40 CFR part 60. Each Method 9 test must consist of five 6-minute observations in a 30-minute period; and [40 CFR 63.1510(f)(3)(i)]

2) Record the results of each test. [40 CFR 63.1510(f)(3)(ii)]

iv. As an alternative to the requirements of 40 CFR 63.1510(f)(3), the permittee of a new or existing aluminum scrap shredder may measure the opacity of the emissions discharged through a stack or stacks using ASTM Method D7520-13 (incorporated by reference, see 40 CFR 63.14) subject to the requirements of 40 CFR 63.1510(f)(4)(i) through (iv). Each test must consist of five 6-minute observations in a 30-minute period. [40 CFR 63.1510(f)(4)]

1) During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520-13, the permittee or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). [40 CFR 63.1510(f)(4)(i)]

2) The permittee must also have standard operating procedures in place including daily or other frequency quality checks to ensure that equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520-13. [40 CFR 63.1510(f)(4)(ii)]

3) The permittee must follow the recordkeeping procedures outlined in 40 CFR 63.10(b)(1) for DCOT certification, compliance report, data sheets and all raw unaltered JPEGs used for opacity and certification determination. [40 CFR 63.1510(f)(4)(iii)]

4) The permittee or the DCOT vendor must have a minimum of four (4) independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity on any one reading and the average error must not exceed 7.5 percent opacity. [40 CFR 63.1510(f)(4)(iv)]

b. The control devices associated with the emission unit shall be properly maintained, used in conjunction with operation of the associated emission unit, and operated consistent with the manufacturer’s specifications. [401 KAR 52:020, Section 10]

c. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 17 (EU17) Holding Furnace (#H11)

Description: This natural gas-fired furnace holds clean molten aluminum prior to casting or crucible operations. The furnace is in an enclosure and emissions are vented to the atmosphere. This unit is classified as a group 2 furnace melting clean charge and using no reactive flux under 40 CFR 63, Subpart RRR.

Maximum Firing Rate: 9.8 MMBtu/hr
Control Device: None
Construction Commenced: 2013

APPLICABLE REGULATIONS:

401 KAR 51:017, Prevention of significant deterioration of air quality, for CO
401 KAR 59:010, New process operations
401 KAR 63:002, Section 2(4)(ccc) 40 C.F.R. 63.1500 to 63.1519, Tables 1 to 3, and Appendix A (Subpart RRR), *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*

PRECLUDED REGULATION:

401 KAR 51:017, Prevention of significant deterioration of air quality, for PM, PM_{10}, $PM_{2.5}$, & VOC

1. **Operating Limitations:**
   a. The permittee must operate all new and existing affected sources and control equipment according to the requirements in 40 CFR 63.1506. [40 CFR 63.1506(a)(1)]

   b. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1506(a)(5)]

   c. The permittee must provide and maintain easily visible labels posted at each group 2 furnace that identifies the applicable emission limits and means of compliance, including: [40 CFR 63.1506(b)]
      i. The type of affected source or emission unit (e.g., group 2 furnace). [40 CFR 63.1506(b)(1)]
      ii. 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), 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)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. The permittee of a new or existing group 2 furnace must: [40 CFR 63.1506(o)]
   i. Operate each furnace using only clean charge as the feedstock, and [40 CFR 63.1506(o)(1)]
   ii. Operate each furnace using no reactive flux. [40 CFR 63.1506(o)(2)]

e. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]

f. The permittee shall prepare and implement for each group 2 furnace, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (a)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]
   i. 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. [40 CFR 63.1510(b)(1)]
   ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]
   iii. 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)]
   iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
      1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
      2) 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. [40 CFR 63.1510(b)(4)(ii)]
   v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
   1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]
   2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]

vii. 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)]

Compliance Demonstration Method:
Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

g. Prior to changing furnace classifications to those not already authorized in **SECTION B**, the permittee shall submit a permit application to incorporate the applicable standards from 40 CFR 63, Subpart RRR. [401 KAR 52:020, Section 7]

2. Emission Limitations:

a. The permittee shall not exceed 3.53 tons of CO/yr on a 12-month rolling basis. [401 KAR 51:017]

Compliance Demonstration Method:

A. For the 12-month rolling total emission limit, the permittee shall calculate the emissions of CO each month using the following equations and compare the result to the limit:

$$M_{CO_i} = \frac{EF_{CO} \times F_i}{2000}$$

$$T_{CO} = \sum_{i=1}^{12} M_{CO_i}$$

Where:
i = month;
M_{CO_i} = The CO emissions in month i in tons;
EF_{CO} = The emission factor for CO in lb/mmscf;
F_i = The throughput of fuel in month i in mmscf;
T_{CO} = Total 12-month rolling CO emissions, in tons/yr.

B. Refer to **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

b. The permittee shall not exceed 0.23 tons of VOC/yr on a 12-month rolling basis. [To preclude 401 KAR 51:017]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method:

A. For the 12-month rolling total emission limit, the permittee shall calculate the emissions of VOC each month using the following equations and compare the result to the limit:

$$M_{VOC_i} = \frac{EF_{VOC} \times F_i}{2000}$$

$$T_{VOC} = \sum_{i=1}^{12} M_{VOC_i}$$

Where:

i = month;
M_{VOC_i} = The VOC emissions in month *i* in tons;
EF_{VOC} = The emission factor for VOC in lb/mmscf;
F_i = The throughput of fuel in month *i* in mmscf;
T_{VOC} = Total 12-month rolling VOC emissions, in tons/yr.

B. Refer to **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

c. The permittee shall not exceed 0.32 tons/yr of PM (Filterable & Condensable), PM_{10} and $PM_{2.5}$ on a 12-month rolling basis. [To preclude 401 KAR 51:017]

Compliance Demonstration Method:

A. For the 12-month rolling total emission limit, the permittee shall calculate the emissions of PM (Filterable & Condensable), PM_{10} and $PM_{2.5}$ each month using the following equations and compare the result to the limit:

$$M_{PM_i} = \frac{EF_{PM} \times F_i}{2000}$$

$$T_{PM} = \sum_{i=1}^{12} M_{PM_i}$$

Where:

i = month;
M_{PM_i} = The PM (Filterable & Condensable), PM_{10} or $PM_{2.5}$ emissions in month *i* in tons;
EF_{PM} = The emission factor for PM (Filterable & Condensable), PM_{10} or $PM_{2.5}$ in lb/mmscf;
F_i = The throughput of fuel in month *i* in mmscf;
T_{PM} = Total 12-month rolling PM (Filterable & Condensable), PM_{10} and $PM_{2.5}$ emissions, in tons/yr.

B. Refer to **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]
Compliance Demonstration Method:
Compliance is assumed as long as the furnace holds only molten clean aluminum, is not subject to fluxing or solid additions, and burns only natural gas as fuel.

e. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]
   i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr
   ii. For process weight rates up to 30.00 tons/hr: $E=3.59P^{0.62}$
   iii. For process weight rates >30 ton/hr: $E=17.31\times P^{0.16}$
   Where:
   E = the allowable PM emissions rate (lbs/hr)
   P = the process weight rate (tons/hr)

   Compliance Demonstration Method:
   Compliance is assumed when complying with the preclusion limits for 401 KAR 51:017 under **2. Emission Limitations** and when burning only natural gas as fuel.

3. Testing Requirements:
Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:
a. The permittee must monitor all control equipment and processes according to the requirements in 40 CFR 63.1510. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to 40 CFR 63, Subpart RRR. [40 CFR 63.1510(a)]

b. The permittee shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan. Refer to **1. Operating Limitations (f)** and **6. Specific Reporting Requirements (a)**, for OM&M plan requirements. [40 CFR 63.1510(b)]

c. The permittee must inspect the labels for each group 2 furnace 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. [40 CFR 63.1510(c)]

d. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly throughput in tons;
   ii. The monthly natural gas usage in MMscf;
   iii. The monthly emissions of CO, VOC, PM, $PM_{10,}$ and $PM_{2.5}$, and the 12-month rolling total for the same pollutant, using the equations provided under **2. Emission**

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Limitations. The results of the equations shall be compared to the limits established for each pollutant.

e. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

a. The permittee of each new or existing group 2 furnace shall record a description of the materials charged to each furnace, including any nonreactive, non-HAP-containing / non-HAP-generating fluxing materials or agents. [40 CFR 63.1510(r)(1)]

b. 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 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
   i. The permittee must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63.1517(a)(1)]
   ii. The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and [40 CFR 63.1517(a)(2)]
   iii. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]

c. 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) must maintain records of: [40 CFR 63.1517(b)]
   i. For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]
   ii. Records of all charge materials and fluxing materials or agents for a group 2 furnace. [40 CFR 63.1517(b)(12)]
   iii. Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements. [40 CFR 63.1517(b)(13)]
   iv. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]
   v. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including the OM&M plan. [40 CFR 63.1517(b)(16)(ii)]

d. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly throughput in tons;
   ii. The monthly natural gas usage in MMscf;
   iii. The monthly emissions of CO, VOC, PM, $PM_{10,}$ and $PM_{2.5}$, and the 12-month rolling total for the same pollutant, using the equations provided under **2. Emission Limitations**. The results of the equations shall be compared to the limits established for each pollutant.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

a. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]

i. If the Division 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 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.

ii. 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 Division.

b. The permittee must submit a certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(o) for each 6-month reporting period. Each certification must contain the information in 40 CFR 63.1516(b)(2)(v). [40 CFR 63.1510(r)(2)]

c. The permittee of each group 2 furnace must 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). [40 CFR 63.1512(r)]

d. The permittee must 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. [40 CFR 63.1516(b)]

i. A report must be submitted if any of these conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]

1) 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). [40 CFR 63.1516(b)(1)(iv)]

2) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]

ii. Each report must include the following certification, as applicable: [40 CFR 63.1516(b)(2)]

1) For each group 2 furnace: “Only clean charge materials were processed in any group 2 furnace during this reporting period, and no fluxing was performed or all fluxing performed was conducted using only nonreactive, non-HAP-containing/non-HAP-generating fluxing gases or agents, except for cover fluxes, during this reporting period.” [40 CFR 63.1516(b)(2)(v)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e. All reports required by 40 CFR 63, Subpart RRR not subject to the requirements in 40 CFR 63.1516(b) must be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the permittee of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to 40 CFR 63.1516(b) in paper format. [40 CFR 63.1516(e)]

f. Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Requirements

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 23 (EU23) Holding Furnace

Description: This natural gas-fired furnace holds clean molten aluminum prior to casting or crucible operations. The furnace is uncontrolled and classified as a Group 2 furnace, under 40 CFR 63, Subpart RRR, melting clean charge and using no reactive flux.

Maximum Firing Rate: 9.8 MMBtu/hr
Control Device: None
Construction Commenced: Expected 2024

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations
401 KAR 63:002, Section 2(4)(ccc) 40 C.F.R. 63.1500 to 63.1519, Tables 1 to 3, and Appendix A (Subpart RRR), *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*

1. **Operating Limitations:**
   a. The permittee must operate all new and existing affected sources and control equipment according to the requirements in 40 CFR 63.1506. [40 CFR 63.1506(a)(1)]

   b. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1506(a)(5)]

   c. The permittee must provide and maintain easily visible labels posted at each group 2 furnace that identifies the applicable emission limits and means of compliance, including: [40 CFR 63.1506(b)]
      i. The type of affected source or emission unit (e.g., group 2 furnace). [40 CFR 63.1506(b)(1)]
      ii. 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), 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)(2)]

   d. The permittee of a new or existing group 2 furnace must: [40 CFR 63.1506(o)]
      i. Operate each furnace using only clean charge as the feedstock, and [40 CFR 63.1506(o)(1)]
      ii. Operate each furnace using no reactive flux. [40 CFR 63.1506(o)(2)]

   e. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]

f. The permittee shall prepare and implement for each group 2 furnace, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after the compliance date established by 40 CFR 63.1501. The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (a)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]
   i. 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. [40 CFR 63.1510(b)(1)]
   ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]
   iii. 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)]
   iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
      1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
      2) 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. [40 CFR 63.1510(b)(4)(ii)]
   v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]
   vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
      1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]

vii. 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)]

Compliance Demonstration Method:
Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

g. Prior to changing furnace classifications to those not already authorized in **SECTION B**, the permittee shall submit a permit application to incorporate the applicable standards from 40 CFR 63, Subpart RRR. [401 KAR 52:020, Section 7]

2. Emission Limitations:

a. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

Compliance Demonstration Method:
Compliance is assumed as long as the furnace holds only molten clean aluminum, is not subject to fluxing or solid additions, and burns only natural gas as fuel.

b. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]

i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr
ii. For process weight rates up to 30.00 tons/hr: $E=3.59P^{0.62}$
iii. For process weight rates greater than 30 ton/hr: $E=17.31\times P^{0.16}$

Where:
E = the allowable PM emissions rate (lbs/hr)
P = the process weight rate (tons/hr)

Compliance Demonstration Method:
Compliance is assumed based on the information and emissions calculations submitted with the application for construction, and on the requirement that the furnace holds only molten clean aluminum, is not subject to fluxing or solid additions, and burns only natural gas as fuel.

3. Testing Requirements:

Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

a. The permittee must monitor all control equipment and processes according to the requirements in 40 CFR 63.1510. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to 40 CFR 63, Subpart RRR. [40 CFR 63.1510(a)]

b. The permittee shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan. Refer to **1. Operating Limitations (f)** and **6. Specific Reporting Requirements**, for OM&M plan requirements. [40 CFR 63.1510(b)]

c. The permittee must inspect the labels for each group 2 furnace 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. [40 CFR 63.1510(c)]

d. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly throughput in tons; and
   ii. The monthly natural gas usage in MMscf.

e. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

a. The permittee of each new or existing group 2 furnace shall record a description of the materials charged to each furnace, including any nonreactive, non-HAP-containing / non-HAP-generating fluxing materials or agents. [40 CFR 63.1510(r)(1)]

b. 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 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
   i. The permittee must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63.1517(a)(1)]
   ii. The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and [40 CFR 63.1517(a)(2)]
   iii. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]

c. 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) must maintain records of: [40 CFR 63.1517(b)]
   i. For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]
   ii. Records of all charge materials and fluxing materials or agents for a group 2 furnace. [40 CFR 63.1517(b)(12)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii. Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements. [40 CFR 63.1517(b)(13)]
iv. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]
v. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including the OM&M plan. [40 CFR 63.1517(b)(16)(ii)]

d. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly throughput in tons; and
   ii. The monthly natural gas usage in MMscf.

e. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

a. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]
   i. If the Division 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 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.
   ii. 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 Division.

b. The permittee must submit a certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(o) for each 6-month reporting period. Each certification must contain the information in 40 CFR 63.1516(b)(2)(v). [40 CFR 63.1510(r)(2)]

c. The permittee of each group 2 furnace must 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). [40 CFR 63.1512(r)]

d. As required by 40 CFR 63.9(b)(4), the permittee must provide notification of: [[40 CFR 63.1515(a)(3)]
   i. Date when construction was commenced, no later than 30 days after the date construction was commenced; [40 CFR 63.1515(a)(3)(ii)]
   ii. Anticipated date of startup; and [40 CFR 63.1515(a)(3)(iii)]
   iii. Actual date of startup. [40 CFR 63.1515(a)(3)(iv)]

e. *Notification of compliance status report.* The permittee must submit a notification of compliance status report within 90 days after the compliance date established by 40 CFR 63.1501. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include the

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

information specified in 40 CFR 63.1515(a)(1) through (10). The required information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination. If the permittee submits the information specified in 40 CFR 63.1515(b) at different times or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the information previously submitted. A complete notification of compliance status report must include: [40 CFR 63.1515(b)]

i. All information required in 40 CFR 63.9(h). [40 CFR 63.1515(b)(1)]
ii. Unit labeling as described in 40 CFR 63.1506(b), including process type or furnace classification and operating requirements. [40 CFR 63.1515(b)(3)]
iii. The OM&M plan. [40 CFR 63.1515(b)(9)]

f. The permittee must 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. [40 CFR 63.1516(b)]
   i. A report must be submitted if any of these conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]
      1) 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). [40 CFR 63.1516(b)(1)(iv)]
      2) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
   ii. Each report must include the following certification, as applicable: [40 CFR 63.1516(b)(2)]
      1) For each group 2 furnace: "Only clean charge materials were processed in any group 2 furnace during this reporting period, and no fluxing was performed or all fluxing performed was conducted using only nonreactive, non-HAP-containing/non-HAP-generating fluxing gases or agents, except for cover fluxes, during this reporting period." [40 CFR 63.1516(b)(2)(v)]

g. All reports required by 40 CFR 63, Subpart RRR not subject to the requirements in 40 CFR 63.1516(b) must be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the permittee of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to 40 CFR 63.1516(b) in paper format. [40 CFR 63.1516(e)]

h. Refer to **SECTION F** for general reporting requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Requirements

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 20 (EU20) Salt Cake Pre-Processing Operation

Description: Salt cake is pre-processed inside the Mud Room Building using an excavator or functionally equipment type of mechanical processing equipment.
Maximum Capacity: 13.7 ton/hr salt cake (monthly average)
Control Device: Baghouse (Mud Room Baghouse)
Construction Commenced: 2022

APPLICABLE REGULATIONS:
401 KAR 53:010, Ambient air quality standards
401 KAR 59:010, New process operations

1. **Operating Limitations:**
   None.

2. **Emission Limitations:**
   a. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

      Compliance Demonstration Method:
      Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

   b. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]
      i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr
      ii. For process weight rates up to 30.00 tons/hr: $E=3.59P^{0.62}$
      Where:
      E = the allowable PM emissions rate (lbs/hr)
      P = the process weight rate (tons/hr)

      Compliance Demonstration Method:
      The permittee shall demonstrate compliance each month by comparing the allowable rate to the actual rate calculated using the following equation:

$$E_{PMi} = \frac{P_i \times EF_{PM}}{h_i} \times \left(1 - \frac{CE}{100}\right)$$

      Where:
      i = month;
      E_{PMi} = the actual average hourly particulate emissions rate for month i (lb/hr);
      P_i = the actual process weight rate for month i (tons/month);
      EF_{PM} = the overall uncontrolled KYEIS particulate emission factor (lb/unit);
      h_i = the actual total hours of operation for month i (hrs/month); and

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

CE = the overall control efficiency (%).

c. The permittee shall ensure that odors are not detected beyond the property line in accordance with the following standard: [401 KAR 53:010, Section 4, Appendix A]

At any time when 1 volume unit of ambient air is mixed with 7 volume units of odorless air, the mixture must have no detectable odor.

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the odor standard by taking reasonable precautions to prevent ammonia gasses and their odors from migrating beyond the property line. Precautions shall include, but are not limited to, minimizing the process byproducts' exposure to moisture.

3. Testing Requirements:
Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

a. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly hours of operation;
   ii. The monthly processing rate of salt cake in tons; and
   iii. The daily pressure drop across the baghouse.

b. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack no less frequently than once every 7 calendar days while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), then the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

c. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly hours of operation;
   ii. The monthly processing rate of salt cake in tons,
   iii. The daily pressure drop across the baghouse;
   iv. The hourly PM emission rate, as calculated for **2. Emission Limitations**, in lb/hr; and

b. The permittee shall retain records of the qualitative visual observations required by **4. Specific Monitoring Requirements (b)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

corrective action taken including results due to observed emissions. [401 KAR 52:020, Section 10]

c. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The permittee shall install, calibrate, maintain, and operate a pressure drop monitoring device to continuously monitor the differential pressure across the baghouse to ensure that pressure does not drop outside the pressure drop range documented by the manufacturer's specifications or the pressure drop range determined during the most recent performance test. Personnel will monitor the differential pressure reading across the baghouse at least once per day during operation. [401 KAR 52:020, Section 10]

b. The control equipment shall be properly maintained, used in conjunction with operation of the associated emission unit, and operated consistent with the manufacturer's specifications. [401 KAR 52:020, Section 10]

c. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 21 (EU21) Primary Shredder
Description:
The Primary Shredder is used to de-bale/shred purchased aluminum scrap in preparation for further downstream processing (i.e., secondary shredding in the Secondary Shredder and subsequent cleaning, separation, and sorting in the scrap processing section of the existing shredder system and/or direct feeding and melting in the furnaces.) This unit is considered an aluminum scrap shredder under 40 CFR 63, Subpart RRR.
Maximum Capacity: 38.0 tons/hr
Control Device: Baghouse
Construction Commenced: Expected 2024

Emission Unit 22 (EU22) Secondary Shredder
Description:
The Secondary Shredder is used to further shred to a smaller size the shredded scrap stream from the Primary Shredder (EU21) in preparation for further downstream processing (i.e. cleaning, separation, and sorting in the scrap processing section of the existing Shredder System (EU16) and/or direct feeding and melting the furnaces). This unit is considered an aluminum scrap shredder under 40 CFR 63, Subpart RRR.
Maximum Capacity: 19.0 tons/hr
Control Device: Baghouse
Construction Commenced: Expected 2024

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations
401 KAR 63:002, Section 2(4)(ccc) 40 C.F.R. 63.1500 to 63.1519, Tables 1 to 3, and Appendix A (Subpart RRR), *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*

PRECLUDED REGULATION:
401 KAR 51:017, Prevention of significant deterioration of air quality

1. **Operating Limitations:**
   a. A weight measurement system or other weight determination procedure must be operated, or conducted (as applicable), in accordance with the OM&M plan. [401 KAR 52:020, Section 10]

      Compliance Demonstration Method:
      Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements.**

   b. The permittee must operate all new and existing affected sources and control equipment according to the requirements in 40 CFR 63.1506. [40 CFR 63.1506(a)(1)]

   c. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

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Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1506(a)(5)]

d. For each affected source or emission unit equipped with an add-on air pollution control device, the permittee must: [40 CFR 63.1506(c)]
   i. Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, see 40 CFR 63.14); [40 CFR 63.1506(c)(1)]
   ii. 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 [40 CFR 63.1506(c)(2)]
   iii. Operate each capture/collection system according to the procedures and requirements in the OM&M plan. [40 CFR 63.1506(c)(3)]

e. The permittee of a scrap shredder with emissions controlled by a fabric filter must operate a bag leak detection system, or a continuous opacity monitor, or conduct visible emissions observations. [40 CFR 63.1506(e)]
   i. If a bag leak detection system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must: [40 CFR 63.1506(e)(1)]
      1) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(e)(1)(i)]
      2) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the 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(e)(1)(ii)]
   ii. If a continuous opacity monitoring system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(e)(2)]
   iii. If visible emission observations are used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must initiate corrective action within 1-hour of any observation of visible emissions during a daily visible emissions test and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(e)(3)]

f. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated

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in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]

g. The permittee shall prepare and implement for each new or existing emission unit, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (a)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]
   i. 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. [40 CFR 63.1510(b)(1)]
   ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]
   iii. 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)]
   iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
      1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
      2) 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. [40 CFR 63.1510(b)(4)(ii)]
   v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]
   vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
      1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]

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2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]

vii. 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)]

Compliance Demonstration Method:
Refer to **3. Specific Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

2. Emission Limitations:

a. The permittee must comply at all times with each applicable limit 40 CFR 63.1505, including periods of startup and shutdown. Table 1 to 40 CFR 63, Subpart RRR summarizes the emission standards for each type of source. [40 CFR 63.1505(a)]

b. The permittee must not discharge or cause to be discharged to the atmosphere: [40 CFR 63.1505(b)]
   i. Emissions in excess of 0.023 grams (g) of PM per dry standard cubic meter (dscm) (0.010 grain (gr) of PM per dry standard cubic foot (dscf)); and [40 CFR 63.1505(b)(1)]
   ii. Visible emissions (VE) in excess of 10 percent opacity from any PM add-on air pollution control device if a continuous opacity monitor (COM) or visible emissions monitoring is chosen as the monitoring option. [40 CFR 63.1505(b)(2)]

Compliance Demonstration Method:
Refer to **3. Specific Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, **6. Specific Reporting Requirements**, and **7. Specific Control Equipment Requirements.**

c. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) opacity. [401 KAR 59:010, Section(3)(1)(a)]

Compliance Demonstration Method:
Compliance is assumed when meeting the requirements of 40 CFR 63, Subpart RRR in **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, **6. Specific Reporting Requirements**, and **7. Specific Control Equipment Requirements.**

d. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]
   i. For process weight rates of 0.50 ton/hr or less: 2.34 lbs/hr
   ii. For process weight rates up to 30.00 tons/hr: $E=3.59P^{0.62}$
   iii. For process weight rates in excess of 30.00 tons/hr: $E=17.31P^{0.16}$

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Where:
E = the allowable PM emissions rate (lbs/hr)
P = the process weight rate (tons/hr)

Compliance Demonstration Method:
Compliance is assumed when complying with the PM emission standard under 40 CFR 63, Subpart RRR.

e. For EU 21, the permittee shall not exceed 12.80 tons/yr of PM, 6.32 tons/yr of PM_{10}, and 3.74 tons/yr of $PM_{2.5}$ on a 12-month rolling basis. [To preclude 401 KAR 51:017]

f. For EU 22, the permittee shall not exceed 6.40 tons/yr of PM, 3.16 tons/yr of PM_{10}, and 1.87 tons/yr of $PM_{2.5}$ on a 12-month rolling basis. [To preclude 401 KAR 51:017]

Compliance Demonstration Method:

A. To demonstrate compliance with each emission limitation, the permittee shall use the following equations to individually calculate PM, PM_{10} and $PM_{2.5}$ emissions each month:

$$M_{PM_i} = \frac{(EF_{PM} \times P_i)}{2{,}000} + \frac{(EF_{PM_U} \times P_i)}{2{,}000}$$

and

$$T_{PM} = \sum_{i=1}^{12} M_{PM_i}$$

Where:

M_{PM_i} = The monthly emissions for each type of PM (i.e. PM, PM_{10}, $PM_{2.5}$) during month *i* in tons per month;
EF_{PM} = Stack Emission Factor for each type of PM established during the most recent stack test in lb/ton;
EF_{PM_U} = Uncaptured Emission Factor for each type of PM established during the most recent stack test in lb/ton;
P_i = The monthly throughput in month *i*, in tons;
T_{PM} = The total 12-month rolling emissions of each type of PM, in tons.

B. Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, **6. Specific Reporting Requirements**.

3. Testing Requirements:

a. Prior to conducting any performance test required by 40 CFR 63, Subpart RRR, the permittee must prepare a site-specific test plan which satisfies all of the rule requirements, and must obtain approval of the plan pursuant to the procedures set forth in 40 CFR 63.7. Performance tests shall be conducted under such conditions as the Administrator specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make

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available to the Administrator such records as may be necessary to determine the conditions of performance tests [40 CFR 63.1511(a)]

b. Following approval of the site-specific test plan, the permittee must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in 40 CFR 63.1515(b). The permittee must conduct this initial performance test within 180 days after the date for compliance established by 40 CFR 63.1501. Except for the date by which the performance test must be conducted, the permittee must conduct each performance test in accordance with the requirements and procedures set forth in 40 CFR 63.7(c). [40 CFR 63.1511(b)]
   i. The performance tests must be conducted under representative conditions expected to produce the highest level of HAP emissions expressed in the units of the emission standards for the HAP (considering the extent of feed/charge contamination, reactive flux addition rate and feed/charge rate). If a single test condition is not expected to produce the highest level of emissions for all HAP, testing under two or more sets of conditions (for example high contamination at low feed/charge rate, and low contamination at high feed/charge rate) may be required. Any subsequent performance tests for the purposes of establishing new or revised parametric limits shall be allowed upon pre-approval from the permitting authority for major sources, or the Administrator for area sources. These new parametric settings shall be used to demonstrate compliance for the period being tested. [40 CFR 63.1511(b)(1)]
   ii. 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. [40 CFR 63.1511(b)(2)]
   iii. 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. [40 CFR 63.1511(b)(4)]
   iv. 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. [40 CFR 63.1511(b)(5)]
   v. Apply 40 CFR 63.1511(b)(1) through (5) of this section for each pollutant separately if a different production rate, charge material or, if applicable, reactive fluxing rate would apply and thereby result in a higher expected emissions rate for that pollutant. [40 CFR 63.1511(b)(6)]
   vi. The permittee may not conduct performance tests during periods of malfunction. [40 CFR 63.1511(b)(7)]

c. The permittee must use the following methods in appendix A to 40 CFR part 60 to determine compliance with the applicable emission limits or standards: [40 CFR 63.1511(c)]
   i. Method 1 for sample and velocity traverses. [40 CFR 63.1511(c)(1)]
   ii. Method 2 for velocity and volumetric flow rate. [40 CFR 63.1511(c)(2)]

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iii. Method 3 for gas analysis. [40 CFR 63.1511(c)(3)]
iv. Method 4 for moisture content of the stack gas. [40 CFR 63.1511(c)(4)]
v. Method 5 for the concentration of PM. [40 CFR 63.1511(c)(5)]
vi. Method 9 for visible emission observations. [40 CFR 63.1511(c)(6)]

d. The permittee may use alternative test methods as provided in 40 CFR 63.1511(d)(1) through (3). [40 CFR 63.1511(d)]
   i. The permittee may use test method ASTM D7520-13 as an alternative to EPA Method 9 subject to conditions described in 40 CFR 63.1510(f)(4). [40 CFR 63.1511(d)(1)]
   ii. In lieu of conducting the annual flow rate measurements using Methods 1 and 2, the permittee may use Method 204 in Appendix M to 40 CFR part 51 to conduct annual verification of a permanent total enclosure for the affected source/emission unit. [40 CFR 63.1511(d)(2)]
   iii. The permittee may use an alternative test method approved by the Administrator. [40 CFR 63.1511(d)(3)]

e. The permittee must conduct a performance test every 5 years following the initial performance test. [40 CFR 63.1511(e)]

f. The permittee must 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 must use the appropriate procedures in 40 CFR 63.1511 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 Division: [40 CFR 63.1511(g)]
   i. The complete emission test report(s) used as the basis of the parameter(s) is submitted. [40 CFR 63.1511(g)(1)]
   ii. The same test methods and procedures as required by 40 CFR 63, Subpart RRR were used in the test. [40 CFR 63.1511(g)(2)]
   iii. 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. [40 CFR 63.1511(g)(3)]
   iv. All process and control equipment operating parameters required to be monitored were monitored as required in 40 CFR 63, Subpart RRR, and documented in the test report. [40 CFR 63.1511(g)(4)]
   v. If the permittee wants to conduct a new performance test and establish different operating parameter values, they must submit a revised site specific test plan and receive approval in accordance with 40 CFR 63.1511(a). In addition, if a permittee wants to use existing data in addition to the results of the new performance test to establish operating parameter values, they must meet the requirements in 40 CFR 63.1511(g)(1) through (4). [40 CFR 63.1511(g)(5)]

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g. The permittee must conduct performance tests to measure PM emissions at the outlet of the control system. If visible emission observation is the selected monitoring option, the permittee must record visible emission observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test according to the requirements of Method 9 in appendix A to 40 CFR part 60. If emissions observations by ASTM Method D7520-13 (incorporated by reference, see 40 CFR 63.14) is the selected monitoring option, the permittee must record opacity observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(a)]

h. The permittee of an affected source or emission unit using a continuous opacity monitoring system must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in appendix B to 40 CFR part 60. Following the performance evaluation, the permittee must measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(l)]

i. Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

a. The permittee must monitor all control equipment and processes according to the requirements in 40 CFR 63.1510. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to 40 CFR 63, Subpart RRR. [40 CFR 63.1510(a)]

b. The permittee must prepare and implement for each new or existing affected source and emission unit, a written OM&M plan. Refer to **1. Operating Limitations (g)** and **6. Specific Reporting Requirements (a),** for OM&M plan requirements: [40 CFR 63.1510(b)]

c. The permittee must: [40 CFR 63.1510(d)]
   i. Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and [40 CFR 63.1510(d)(1)]
   ii. 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)(2)]
   iii. Meet the requirements in **SECTION E.**

d. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The monthly tons of material processed;
   ii. The monthly hours of operation; and
   iii. The monthly and 12-month rolling PM, PM_{10}, and $PM_{2.5}$ emissions, in tons.

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e. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

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 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]

i. The permittee must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63.1517(a)(1)]

ii. The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and [40 CFR 63.1517(a)(2)]

iii. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]

b. In addition to the general records required by 40 CFR 63.10(b), the permittee must maintain records of: [40 CFR 63.1517(b)]

i. For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter: [40 CFR 63.1517(b)(1)]

1) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken. [40 CFR 63.1517(b)(1)(i)]

2) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.1517(b)(1)(ii)]

3) If an aluminum scrap shredder is subject to visible emission observation requirements, records of all Method 9 observations, including records of any visible emissions during a 30-minute daily test or records of all ASTM D7520-13 observations (incorporated by reference, see 40 CFR 63.14), including data sheets and all raw unaltered JPEGs used for opacity determination, 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. [40 CFR 63.1517(b)(1)(iii)]

ii. For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]

iii. Records of annual inspections of emission capture/collection and closed vent systems or, if the alternative to the annual flow rate measurements is used, records of differential pressure; fan RPM or fan motor amperage; static pressure measurements; or duct centerline velocity using a hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice

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plate equipped with an associated thermocouple, as appropriate. [40 CFR 63.1517(b)(14)]

iv. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]

v. Site-specific secondary aluminum processing unit emission plan (if applicable). [40 CFR 63.1517(b)(16)(ii)]

vi. For any failure to meet an applicable standard, the permittee must maintain the following records; [40 CFR 63.1517(b)(18)]

1) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken. [40 CFR 63.1517(b)(18)(i)]

2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 63.1517(b)(18)(ii)]

c. The permittee shall retain records of the following: [401 KAR 52:020, Section 10]

i. The monthly tons of material processed;

ii. The monthly hours of operation; and

iii. The monthly and 12-month rolling PM, PM_{10}, and $PM_{2.5}$ emissions, in tons.

d. Refer to **SECTION F** for general recordkeeping requirements.

6. <u>Specific Reporting Requirements</u>:

a. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]

i. If the Division 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 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.

ii. 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 revised plan incorporating them the Division.

b. If a permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR 63.1510(j)(5) and 40 CFR 63.1510(v), the permittee may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in 40 CFR 63.1510(w)(1) through (6). [40 CFR 63.1510(w)]

c. As required by 40 CFR 63.9(e) and (f), the permittee must provide notification of the anticipated date for conducting performance tests and visible emission observations. The permittee must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible

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emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place. [40 CFR 63.1515(a)(6)]

d. As required by 40 CFR 63.9(g), the permittee must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems. [40 CFR 63.1515(a)(7)]

e. The permittee must 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. [40 CFR 63.1516(b)]
   i. A report must be submitted if any of these conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]
      1) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(i)]
      2) The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(ii)]
      3) The corrective action specified in the OM&M plan for visible emissions from an aluminum scrap shredder was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(iii)]
      4) An excursion of a compliant process or operating parameter value or range (*e.g.*, lime injection rate or screw feeder setting, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature, definition of acceptable scrap, or other approved operating parameter). [40 CFR 63.1516(b)(1)(iv)]
      5) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
   ii. The permittee must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested. [40 CFR 63.1516(b)(3)]
      1) Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.2) required by 40 CFR 63, Subpart RRR, the permittee must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either 40 CFR 63.1516(b)(3)(i)(A) or (B). [40 CFR 63.1516(b)(3)(i)]
   iii. A malfunction report that is required under 40 CFR 63.1516(d) shall be submitted simultaneously with the semiannual excess emissions/summary report required by 40 CFR 63.1516(b). [40 CFR 63.1516(b)(4)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

f. For the purpose of annual certifications of compliance required by 40 CFR part 70, the permittee must certify continuing compliance based upon, but not limited to, the following conditions: [40 CFR 63.1516(c)]
   i. Any period of excess emissions, as defined in 40 CFR 63.1516(b)(1), that occurred during the year were reported as required by 40 CFR 63, Subpart RRR; and [40 CFR 63.1516(c)(1)]
   ii. All monitoring, recordkeeping, and reporting requirements were met during the year. [40 CFR 63.1516(c)(2)]

g. If there was a malfunction during the reporting period, the permittee must submit a report that includes the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken for each malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must include a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions, including, but not limited to, product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The report must also include a description of actions taken by a permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.1506(a)(5). [40 CFR 63.1516(d)]

h. All reports required by 40 CFR 63, Subpart RRR not subject to the requirements in 40 CFR 63.1516(b) must be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the permittee of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to 40 CFR 63.1516(b) in paper format. [40 CFR 63.1516(e)]

i. Refer to **SECTION F** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The permittee of an aluminum scrap shredder must install and operate a bag leak detection system as required in 40 CFR 63.1510(f)(1), install and operate a continuous opacity monitoring system as required in 40 CFR 63.1510(f)(2), or conduct visible emission observations as required in 40 CFR 63.1510(f)(3). [40 CFR 63.1510(f)]
   i. These requirements apply to the permittee of a new or existing affected source or existing emission unit using a bag leak detection system. [40 CFR 63.1510(f)(1)]
      1) The owner or operator must install and operate a bag leak detection system for each exhaust stack of a fabric filter. [40 CFR 63.1510(f)(1)(i)]
      2) Each bag leak detection system must be installed, calibrated, operated, and maintained according to the manufacturer's operating instructions. [40 CFR 63.1510(f)(1)(ii)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.1510(f)(1)(iii)]
4) The bag leak detection system sensor must provide output of relative or absolute PM loadings. [40 CFR 63.1510(f)(1)(iv)]
5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor. [40 CFR 63.1510(f)(1)(v)]
6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. [40 CFR 63.1510(f)(1)(vi)]
7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter. [40 CFR 63.1510(f)(1)(vii)]
8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.1510(f)(1)(viii)]
9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.1510(f)(1)(ix]
10) Following initial adjustment of the system, the permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. [40 CFR 63.1510(f)(1)(x)]

ii. These requirements apply to the permittee of a new or existing affected source or an existing emission unit using a continuous opacity monitoring system. [40 CFR 63.1510(f)(2)]
   1) The permittee must install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack. [40 CFR 63.1510(f)(2)(i)]
   2) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in appendix B to 40 CFR part 60. [40 CFR 63.1510(f)(2)(ii)]

iii. These requirements apply to the permittee of a new or existing aluminum scrap shredder who conducts visible emission observations. The permittee must: [40 CFR 63.1510(f)(3)]
   1) Perform a visible emissions test for each aluminum scrap shredder using a certified observer at least once a day according to the requirements of Method 9 in appendix A to 40 CFR part 60. Each Method 9 test must consist of five 6-minute observations in a 30-minute period; and [40 CFR 63.1510(f)(3)(i)]
   2) Record the results of each test. [40 CFR 63.1510(f)(3)(ii)]

iv. As an alternative to the requirements of 40 CFR 63.1510(f)(3), the permittee of a new or existing aluminum scrap shredder may measure the opacity of the emissions

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

discharged through a stack or stacks using ASTM Method D7520-13 (incorporated by reference, see 40 CFR 63.14) subject to the requirements of 40 CFR 63.1510(f)(4)(i) through (iv). Each test must consist of five 6-minute observations in a 30-minute period. [40 CFR 63.1510(f)(4)]

1) During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520-13, the permittee or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). [40 CFR 63.1510(f)(4)(i)]
2) The permittee must also have standard operating procedures in place including daily or other frequency quality checks to ensure that equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520-13. [40 CFR 63.1510(f)(4)(ii)]
3) The permittee must follow the recordkeeping procedures outlined in 40 CFR 63.10(b)(1) for DCOT certification, compliance report, data sheets and all raw unaltered JPEGs used for opacity and certification determination. [40 CFR 63.1510(f)(4)(iii)]
4) The permittee or the DCOT vendor must have a minimum of four (4) independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity on any one reading and the average error must not exceed 7.5 percent opacity. [40 CFR 63.1510(f)(4)(iv)]

b. The control device associated with each emission unit shall be properly maintained, used in conjunction with operation of the associated emission unit, and operated consistent with the manufacturer's specifications. [401 KAR 52:020, Section 10]

c. Refer to **SECTION E.**

SECTION C – INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

Description	Generally Applicable Regulation
1. Lower scrap yard- vehicle fugitives	401 KAR 63:010
2. Upper (shredder) scrap yard –surface erosion fugitives	401 KAR 63:010
3. Delaquering Kiln Conveyor/transfers not vented to control device	401 KAR 63:010
4. Reverb. Furnace Charging- sidewell vibrating chute	401 KAR 63:010
5. Reverb Furnace Ingot casting	None
6. Reverb Furnace Crucible Filling Fugitives	401 KAR 63:010
7. Dross yard –dross receiving- drop fugitives	401 KAR 63:010
8. Dross yard – flux receiving – drop fugitives	401 KAR 63:010
9. Dross yard – dross stockpiles – wind erosion	401 KAR 63:010
10. Dross yard – flux stockpiles - wind erosion	401 KAR 63:010
11. Dross yard – sweeping and wind erosion	401 KAR 63:010
12. Dross yard – dross handling- mtrl trnsfr fugitives	401 KAR 63:010
13. Dross yard – flux handling – mtrl trnsfr fugitives	401 KAR 63:010
14. Dross yard – Vehicle traffic fugitives	401 KAR 63:010
15. Rotary Furnace Casting	None
16. Rotary Furnace Crucible filling fugitives	401 KAR 63:010
17. Crucible burners (8 at 2.1 MMBtu/hr each)	401 KAR 63:010; 401 KAR 63:020
18. Crucible cleaning	401 KAR 59:010; 401 KAR 63:010
19. Landfill – mineral spoil mixing- fugitives	401 KAR 63:010
20. Landfill – reject dumping (fugitives in EIS)	401 KAR 63:010
21. Landfill – wind erosion fugitives	401 KAR 63:010
22. Fuel storage (gasoline and diesel)	None
23. Natural gas space heaters	401 KAR 63:020
24. Maintenance activities	None
25. Baghouse change outs	401 KAR 63:010
26. Crucible Preheater Stations (4), 2.7 MMBtu/hr each	401 KAR 63:010 401 KAR 63:020

SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. 1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. PM, PM_{10}, $PM_{2.5}$, HCl, D/F, VOC, THC, opacity, and CO emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. *Secondary aluminum processing units*. If the permittee cannot or chooses not to demonstrate compliance with the applicable individual emission limitations under 40 CFR 63, Subpart RRR referenced in **SECTION B** above, the permittee shall comply with the emission limits calculated using the equations for PM, HCl, and D/F in 40 CFR 63.1505(k)(1) through (3) for each secondary aluminum processing unit (SAPU) at the secondary aluminum production facility. [40 CFR 63.1505(k)]
   a. The permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of PM, HCl, or D/F in excess of: [40 CFR 63.1505(k)(1) (3)]

$$L_{c_{PM,HCl,D/F}} = \frac{\sum_{i=1}^{n}\left(L_{ti_{PM,HCl,D/F}} \times T_{ti}\right)}{\sum_{i=1}^{n}(T_{ti})}$$

Where:

$Lti_{PM,HCl,D/F}$ = the PM, HCl, or D/F emission limit for individual emission unit *i* in 40 CFR 63.1505(i)(1) and (2) for a group 1 furnace;

Tti = the mass of feed/charge for 24 hours for individual emission unit i; and

$Lc_{PM,HCl,D/F}$ = the daily PM, HCl, or D/F emission limit for the secondary aluminum processing unit which is used to calculate the 3-day, 24-hour PM emission limit applicable to the SAPU.

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

Compliance Demonstration Method:

The permittee shall use the procedures in 40 CFR 63.1513(e)(1), (2), and (3) or the procedure in (e)(4) to determine compliance with emission limits for a secondary aluminum processing unit. [40 CFR 63.1513(e)]

1) The permittee shall use the following equations to compute the mass-weighted PM, HCl, and D/F emissions for a secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit ($Ec_{PM,HCl,D/F}$) is less than or equal to the emission limit for the secondary aluminum processing unit ($Lc_{PM,HCl,D/F}$) calculated using Equation 1, 2, and 3 in 40 CFR 63.1505(k). [40 CFR 63.1513(e)(1) – (3)

$$E_{c_{PM,HCl,D/F}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{PM,HCl,D/F}} \times T_{ti}\right)}{\sum_{i=1}^{n}(T_{ti})}$$

SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Where:

$Ec_{PM,HCl,D/F}$ = The mass-weighted PM, HCl, or D/F emissions for the secondary aluminum processing unit;

$Eti_{PM,HCl,D/F}$ = Measured PM, HCl, or D/F emissions for individual emission unit, or group of co-controlled emission units, i;

Tti = The average feed rate for individual emission unit i during the operating cycle or performance test period, or the sum of the average feed rates for all emission units in the group of co-controlled emission units i; and

n = The number of emission units, and groups of co-controlled emission units in the secondary aluminum processing unit.

2) As an alternative to using the equations in 40 CFR 63.1513(e)(1), (2), and (3), 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). [40 CFR 63.1513(e)(4)]

b. When group 1 furnaces are included in a single existing SAPU or new SAPU, and the emissions from more than one emission unit within that existing SAPU or new SAPU are manifolded to a single control device, compliance for all units within the SAPU is demonstrated if the total measured emissions from all controlled and uncontrolled units in the SAPU do not exceed the emission limits calculated for that SAPU based on the applicable equation in 40 CFR 63.1505(k). [40 CFR 63.1511(h)]

SECTION E – SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

2. For EU02, EU03, EU04, EU13, EU14, EU16, EU21, EU22:
   a. The permittee shall: [40 CFR 63.1510(d)]
      i. Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and [40 CFR 63.1510(d)(1)]
      ii. 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. This inspection shall include a volumetric flow rate measurement taken at a location in the ductwork downstream of the hoods that is representative of the actual volumetric flow rate without interference due to leaks, ambient air added for cooling or ducts from other hoods. The flow rate measurement must be performed in accordance with 40 CFR 63.1510(d)(2)(i), (ii), or (iii). As an alternative to the flow rate measurement specified in 40 CFR 62.1510(d)(2), the inspection may satisfy the requirements of 40 CFR 62.1510(d)(2), including the operating requirements in 40 CFR 63.1506(c), by including permanent total enclosure verification in accordance with 40 CFR 63.1510(d)(2)(i) or (iv). Inspections that fail to successfully demonstrate that the requirements of 40 CFR 63.1506(c) are met, must be followed by repair or adjustment to the system operating conditions and a follow up inspection within 45 days to demonstrate that 40 CFR 63.1506(c) requirements are fully met. [40 CFR 63.1510(d)(2)]
         1) Conduct annual flow rate measurements using U.S. EPA Methods 1 and 2 in 40 CFR 60, Appendix A, or conduct annual verification of a permanent total enclosure using U.S. EPA Method 204; or the permittee may follow one of the three alternate procedures described in 40 CFR 63.1510(d)(2)(ii), (iii), or (iv) to maintain system operations in accordance with an operating limit established during the performance test. The operating limit is determined as the average reading of a parametric monitoring instrument (Magnehelic®, manometer, anemometer, or other parametric monitoring instrument) and technique as described in 40 CFR 63.1510(d)(2)(ii), (iii), and (iv). A deviation, as defined in 40 CFR 63.1510(d)(2)(ii), (iii), and (iv), from the parametric monitoring operating limit requires the permittee to make repairs or adjustments to restore normal operation within 45 days. [40 CFR 63.1510(d)(2)(i)]
         2) As an alternative to annual flow rate measurements using U.S. EPA Methods 1 and 2, measurement with U.S. EPA Methods 1 and 2 can be performed once every 5 years, provided that: [40 CFR 63.1510(d)(2)(ii)]
            (A) A flow rate indicator consisting of a pitot tube and differential pressure gauge (Magnehelic®, manometer or other differential pressure gauge) is installed

SECTION E – SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)

with the pitot tube tip located at a representative point of the duct proximate to the location of the Methods 1 and 2 measurement site; and [40 CFR 63.1510(d)(2)(ii)(A)]

(B) The flow rate indicator is installed and operated in accordance with the manufacturer's specifications; and [40 CFR 63.1510(d)(2)(ii)(B)]

(C) The differential pressure is recorded during the Method 2 performance test series; and [40 CFR 63.1510(d)(2)(ii)(C)]

(D) Daily differential pressure readings are made by taking three measurements with at least 5 minutes between each measurement and averaging the three measurements; and readings are recorded daily and maintained at or above 90 percent of the average pressure differential indicated by the flow rate indicator during the most recent Method 2 performance test series; and [40 CFR 63.1510(d)(2)(ii)(D)]

(E) An inspection of the pitot tube and associated lines for damage, plugging, leakage and operational integrity is conducted at least once per year; or [40 CFR 63.1510(d)(2)(ii)(E)]

3) As an alternative to annual flow rate measurements using EPA Methods 1 and 2, measurement with EPA Methods 1 and 2 can be performed once every 5 years, provided that: [40 CFR 63.1510(d)(2)(iii)]

(A) Daily measurements of the capture and collection system's fan revolutions per minute (RPM) or fan motor amperage (amps) are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at or above 90 percent of the average RPM or amps measured during the most recent Method 2 performance test series; or [40 CFR 63.1510(d)(2)(iii)(A)]

(B) A static pressure measurement device is installed in the duct immediately downstream of the hood exit, and daily pressure readings are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at 90 percent or better of the average vacuum recorded during the most recent Method 2 performance test series; or [40 CFR 63.1510(d)(2)(iii)(B)]

(C) A hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple and automated data logging software and associated hardware is installed; and daily readings are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at 90 percent or greater of the average readings during the most recent Method 2 performance test series; or [40 CFR 63.1510(d)(2)(iii)(C)]

(D) For booth-type hoods, hotwire anemometer measurements of hood face velocity are performed simultaneously with U.S. EPA Method 1 and 2 measurements, and the annual hood face velocity measurements confirm that the enclosure draft is maintained at 90 percent or greater of the average readings during the most recent Method 2 performance test series. Daily

SECTION E – SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)

readings are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at 90 percent or greater of the average readings during the most recent Method 1 and 2 performance test series. [40 CFR 63.1510(d)(2)(iii)(D)]

4) As an alternative to the annual verification of a permanent total enclosure using U.S. EPA Method 204, verification can be performed once every 5 years, provided that: [40 CFR 63.1510(d)(2)(iv)]
   (A) Negative pressure in the enclosure is directly monitored by a pressure indicator installed at a representative location; [40 CFR 63.1510(d)(2)(iv)(A)]
   (B) Pressure readings are recorded daily or the system is interlocked to halt material feed should the system not operate under negative pressure; [40 CFR 63.1510(d)(2)(iv)(B)]
   (C) An inspection of the pressure indicator for damage and operational integrity is conducted at least once per calendar year. [40 CFR 63.1510(d)(2)(iv)(C)]

3. The permittee shall calibrate or replace any monitoring devices (i.e. pressure drop monitoring equipment) for the control equipment in **SECTION E.2.** in a manner consistent with the manufacturer's recommendations or, at a minimum, annually. [401 KAR 52:020, Section 10]

SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, shall be defined as follows:
   a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
   b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
   c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.

9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

d. The method used for determining the compliance status for the source, currently and over the reporting period.
e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the following addresses:

Division for Air Quality Bowling Green Regional Office 2642 Russellville Road Bowling Green, KY 42101	U.S. EPA Region 4 Air Enforcement Branch Atlanta Federal Center 61 Forsyth St. SW Atlanta, GA 30303-8960

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

SECTION G – GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
      (2) The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
      (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
      (4) New requirements become applicable to a source subject to the Acid Rain Program.

      Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

   d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, Section 3(1)(c)].

SECTION G – GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) b].

l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) d.].

o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) a.].

SECTION G – GENERAL PROVISIONS (CONTINUED)

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
   (1) Applicable requirements that are included and specifically identified in this permit; and
   (2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

3. Permit Revisions

a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G – GENERAL PROVISIONS (CONTINUED)

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, EUs 21, 22 and 23, and modifications to EU04 and EU13 in accordance with the terms and conditions of this permit.

a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, notification of the following:
   (1) The date when construction commenced.
   (2) The date of start-up of the affected facilities listed in this permit.
   (3) The date when the maximum production rate specified in the permit application was achieved.

c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

d. Pursuant to 401 KAR 50:055, Section 2(1)(a), an owner or operator of any affected facility subject to any standard within the administrative regulations of the Division for Air Quality shall demonstrate compliance with the applicable standard(s) within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of such facility. Pursuant to 401 KAR 52:020, Section 3(3)(c), sources that have not demonstrated compliance within the timeframes prescribed in 401 KAR 50:055, Section 2(1)(a), shall operate the affected facility only for purposes of demonstrating compliance unless authorized under an approved compliance plan or an order of the cabinet.

e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.

f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

SECTION G – GENERAL PROVISIONS (CONTINUED)

5. Testing Requirements

   a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.

   b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

   c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

   a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

   b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

7. Emergency Provisions

   a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
      (1) An emergency occurred and the permittee can identify the cause of the emergency;
      (2) The permitted facility was at the time being properly operated;

SECTION G – GENERAL PROVISIONS (CONTINUED)

(3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
(4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.1-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
(5) This requirement does not relieve the source of other local, state or federal notification requirements.

b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
(1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
(2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
(3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.155.
(5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156 and 40 CFR 82.157.
(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION G – GENERAL PROVISIONS (CONTINUED)

9. Risk Management Provisions

   a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to U.S. EPA using the RMP* eSubmit software.

   b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H – ALTERNATE OPERATING SCENARIOS

None

SECTION I – COMPLIANCE SCHEDULE

N/A

APPENDIX A

CAM PLAN for EU06

APPENDIX A

CAM Plan – Salt Cake Processing Facility

I. CAM BACKGROUND

EMISSION UNIT

Description: Salt Cake Processing Facility

Identification: Emission Unit 06 (EU06)

Facility: Real Alloy Recycling, LLC - Morgantown, Kentucky

APPLICABLE REGULATIONS, EMISSION LIMITATIONS, AND MONITORING REQUIREMENTS

Regulation/ Emission Limit: *401 KAR 59:010 (New Process Operations)*; PM emissions less than $3.59 \times P^{0.62}$ lb/hr where P is tons of material processed per hour and visible emissions less than 20% opacity

Current Monitoring Requirements: Daily baghouse differential pressure drop for each of three baghouses: Baghouse #3, Baghouse #4, Baghouse #14A

Weekly visible emissions observations (EPA Reference Method 9 when visible emissions are detected and/or corrective actions taken)

CONTROL TECHNOLOGY

Pulse air baghouse with a maximum design flow capacities of 35,000 acfm (Baghouse #3), 50,000 acfm (Baghouse #4), and 110,000 acfm (Baghouse#14A).

II. MONITORING APPROACH

The key elements of the monitoring approach, including the indicators to be monitored, indicator ranges, and performance criteria are summarized in Table A-1.

APPENDIX A

TABLE A-1. SALT CAKE PROCESSING FACILITY MONITORING APPROACH SUMMARY

Indicator	
Parameter	Pressure Drop
Measurement Approach	Pressure drop across the baghouse is measured continuously using a magnehelic differential pressure gauge and is observed by an operator daily. Weekly visual inspection of collection and control devices and routine baghouse equipment maintenance will also be conducted.
Indicator Range	
	The indicator range is a pressure drop reading between 1.5 and 12.0 in. H_2O. Excursions trigger an inspection and potentially corrective action and reporting.
Performance Criteria	
Data Representativeness	Pressure drop across the baghouse is measured at the inlet and outlet of the baghouse and is an indicator of baghouse performance and thus can be used to ensure compliance with applicable emission limitations. A reading is taken daily such that 24-hours do not pass between readings.
QA/QC Practices and Criteria	Pressure gauge is calibrated semiannually. Zero check and pressure lead checks performed monthly.
Monitoring Frequency and Data Collection Procedures	Pressure drop is measured continuously and an operator observes the pressure drop daily.
Corrective Action	When an out of range pressure drop reading occurs, operators will check the pressure gauge and baghouse equipment to ensure proper operation. If any of these checks indicate abnormal baghouse operation, the permittee will inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem will be remedied as soon as is practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

III. MONITORING APPROACH JUSTIFICATION

The Salt Cake Processing Facility Baghouses control emissions routed from four different areas of the plant: the receiving building, primary processing, secondary processing and the reject building.

Rationale for Selecting Performance Indicators

The pressure drop across the baghouse is monitored continuously and observed daily. A measured differential pressure drop across the baghouse above the maximum end of the indicator range may suggest the cleaning cycle for the baghouse is not frequent enough, the pulse air cleaning system is damaged, or the bags are becoming plugged. A measured pressure drop below the minimum end of the indicator range may suggest that loose or broken bags are present within the system.

Rationale for Selecting Indicator Range

The indicator range for baghouse differential pressure drop is between 1.5 and 12.0 in. H_2O. This indicator range was chosen based on operational experience and manufacturer's specifications.