

**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: Nematik USA, Inc.
Mailing Address: 20 Prestwick Drive, Glasgow, KY 42141

Source Name: Nematik USA, Inc.
Mailing Address: 20 Prestwick Drive, Glasgow, KY 42141

Source Location: Corner of Prestwick Drive and Aberdeen Dr

Permit ID: V-26-009
Agency Interest #: 78
Activity ID: APE20250001
Review Type: Title V, Operating
Source ID: 21-009-00065

Regional Office: Bowling Green Regional Office
2642 Russellville Road
Bowling Green, KY 42101
(270) 746-7475

County: Barren

Application Complete Date: February 10, 2026
Issuance Date:
Expiration Date:

**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-26-009	Renewal	APE20250001	2/10/2026		Renewal of permit and removal of Induction Furnaces (EP 002)

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**EP #004 Dross Cooling (D01)**

Description: This operation reduces the dross temperature after skimming from the melt/hold furnaces by placing hot dross onto pads located in the production building's alloy department. Dross is not agitated during cooling.

Maximum Capacity: 0.4 tons/hr

Control Device: Building Enclosure

Construction: 06/05/2000

APPLICABLE REGULATION:

401 KAR 63:010, *Fugitive emissions*

STATE-ORIGIN REQUIREMENTS:

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

1. Operating Limitations:

- a. A person 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 to which earth or other material has been transported 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 removal or destruction of air contaminants before discharge to the open air. [401 KAR 63:010, Section 3(3)]

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

- 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. The permittee 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)]

2. Emission Limitations:

- a. The permittee 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)]
- b. The permittee shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No permittee shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the Cabinet. [401 KAR 63:020, Section 3]

Compliance Demonstration Method:

Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. Testing Requirements:

Performance testing shall be conducted if required by the Cabinet. [401 KAR 50:045, Section 1]

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. The permittee shall perform a qualitative visual observation of the lot line once per day, during operation. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct U.S. EPA 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]

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 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. Qualitative fugitive emissions observations conducted daily including the date, time, initials of observer, whether any fugitive dust emissions were observed,
 - ii. Any U.S. EPA Reference Method 22 performed and field records identified in U.S. EPA Reference Method 22.
 - iii. Any corrective action taken and the results.
- c. The permittee shall maintain records of raw material processed for each affected facility on a monthly basis. [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.

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

EP #005

Die-Cast Holding Furnaces (HF1-HF14)

Description:

Electric, custom-built die-cast holding furnaces that process only clean charge and use only nonreactive, non-HAP containing/non-HAP generating flux. These furnaces are classified as Group 2 furnaces as defined in 40 CFR 63, Subpart RRR.

Control Device:

None

Holding Furnace ID #	Max. Non-HAP Flux Usage (lb/hr)	Max. Aluminum Throughput (tons/hr)	Construction Commenced
HF01	1.0	1.50	2000
HF02	1.0	1.50	2000
HF03	1.0	1.50	2000
HF04	1.0	1.50	2000
HF05	1.0	1.50	1994
HF06	1.0	1.50	1994
HF07	1.0	1.50	1994
HF08	1.0	1.50	1994
HF09	1.0	1.50	1994
HF010	1.0	2.25	1994
HF011	1.0	2.25	1994
HF012	1.0	2.25	1994
HF013	1.0	2.25	1994
HF014	1.0	2.25	1994

APPLICABLE REGULATIONS:

401 KAR 59:010, *New process operations*

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

1. Operating Limitations:

- a. 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)]
- b. *Labeling*. 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)]

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

- 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, 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)]
- c. 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. [40 CFR 63.1506(o)(1)]
 - ii. Operate each furnace using no reactive flux. [40 CFR 63.1506(o)(2)]
- d. *Corrective action.* When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the 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)]
- e. Prior to changing furnace classifications to those not already authorized in Section B of permit V-26-009, the permittee shall submit a permit revision application to the Division to incorporate the applicable requirements from 40 CFR 63, Subpart RRR regarding changes in furnace classification. [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:

Refer to 4. Specific Monitoring Requirements (a) and 5. Specific Recordkeeping Requirements (a).

- 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 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2)]
 - i. For process weight rates ≤ 0.50 ton/hour: $E = 2.34$
 - ii. For process weight rates > 0.50 ton/hr and ≤ 30 tons/hr: $E = 3.59P^{0.62}$

Where: E = rate of emission in lb/hr, and
P = process weight rate in tons/hr.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Compliance Demonstration Method:**

To demonstrate compliance with the particulate matter emission limitations specified in 401 KAR 59:010, the permittee shall monitor the amounts and types of process weight added to each emissions unit. The process weight rate shall be determined by dividing the tons of material added to each emission unit in a calendar month divided by total hours the unit operated that month. The monthly average particulate emissions shall be calculated as follows:

$$PE = \left(\frac{PW \times EF^*}{H} \right) \times (1 - CE)$$

Where:

PE = particulate emissions in lb/hr;

PW = process weight in tons/month;

EF = particulate emission factor in lb/ton of process weight;

* The particulate emission factor shall be the number determined from AP-42, SDS, the most recent Division approved stack test, or Division approved value.

H = total hours of operation in a month; and

CE = Control efficiency

3. Testing Requirements:

Performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet. [401 KAR 50:045, Section 1, and 401 KAR 59:005, Section 2(2)]

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than once every seven (7) calendar days while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), 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]
- b. The permittee shall monitor the following, for each emission point: [401 KAR 52:020, Section 10]
 - i. The monthly total process weight;
 - ii. The monthly hours of operation.
- c. *Operation, maintenance, and monitoring (OM&M) plan.* The permittee must prepare and implement for each new or existing affected source and emission unit, a written OM&M plan. The permittee must submit the OM&M plan to the Division no later than the compliance date established by 40 CFR 63.1501. The permittee must submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b), or within 90 days after the compliance date established by 40 CFR 63.1501 if no initial performance test is required. 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 and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR.

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

The permittee must 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. 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 or 40 CFR 63, Subpart RRR, the permittee must promptly make all necessary revisions and resubmit the revised plan. If the permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the permittee submits a description of the changes and a revised plan incorporating them to the Division. Each plan must 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 monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
 - A. 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)]
 - B. 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)]
 - iv. 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)]
 - v. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
 - A. 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)]
 - B. 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)]
 - vi. 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)]
- d. *Labeling.* 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)]
- e. The permittee must: [40 CFR 63.1510(r)]
- i. 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)]

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

- ii. 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)]
- f. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the qualitative visual observations made as specified in 4. **Specific Monitoring Requirements (a)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any corrective action taken, and any U.S. EPA Reference Method 9 readings conducted. [401 KAR 52:020, Section 10]
- b. The permittee shall maintain records of the following, for each emission point: [401 KAR 52:020, Section 10]
 - i. The monthly total process weight;
 - ii. The monthly hours of operation.
- c. The permittee shall maintain records of the hourly PM emissions calculated to demonstrate compliance with 2. **Emissions Limitations (b)**. [401 KAR 52:020, Section 10]
- d. As required by 40 CFR 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by 40 CFR 63, Subparts A and RRR. [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)]
- e. 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)]

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

- 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)]
- vi. For any failure to meet an applicable standard, the permittee must maintain the following records; [40 CFR 63.1517(b)(18)]
 - A. 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)]
 - B. 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)]
- vii. 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)]
 - A. 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)]
 - 1) The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(i)(A)]
 - 2) The quantities of feed/charge and flux introduced during each startup and shutdown; and [40 CFR 63.1517(b)(19)(i)(B)]
 - 3) 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)]
 - B. To demonstrate compliance based on performance tests, the permittee must maintain the following records: [40 CFR 63.1517(b)(19)(ii)]
 - 1) The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(ii)(A)]
 - 2) The measured emissions in lb/hr or µg/hr or ng/hr; [40 CFR 63.1517(b)(19)(ii)(B)]
 - 3) The measured feed/charge rate in tons/hr or Mg/hr from your 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)]
 - 4) An explanation to support that such conditions are considered representative startup and shutdown operations. [40 CFR 63.1517(b)(19)(ii)(D)]
- a. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

- a. *Excess emissions/summary report.* 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

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

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)]
 - A. An excursion of a compliant process or operating parameter value or range (*e.g.*, definition of acceptable scrap, or other approved operating parameter). [40 CFR 63.1516(b)(1)(iv)]
 - ii. Each report must include each of these certifications, as applicable: [40 CFR 63.1516(b)(2)]
 - A. "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)]
- b. *Annual compliance certifications.* For the purpose of annual certifications of compliance required by 40 CFR part 70 or 71, 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)]
- c. 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)]
- d. 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, 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)]

7. **Specific Control Equipment Operating Conditions:**
Refer to Section E.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**EP #003****Reverberatory Furnaces (RMF01 & RMF02)**

Description:	Two custom built natural gas-fired reverberatory sidewall melting furnaces. Reactive (Chlorine) fluxing is performed in the sidewalls to remove magnesium and other impurities which are manually skimmed off as dross. Furnace RMF01 has two burners each rated at 20.2 MMBtu/hr and RMF02 has two burners each rated at 14.0 MMBtu/hr. These furnaces are classified as Group 1 furnaces as defined in 40 CFR 63, Subpart RRR.
Maximum Capacity:	6.5 tons/hr of aluminum feed, each; 88 lbs/hr chlorine flux, each; 722 lbs/hr powder flux, each; and 1500 lbs/hr alloy materials, each
Fuel:	Natural gas (flue gas stacks discharge natural gas emissions from the main hearth directly to the atmosphere)
Total Heat Input Capacity:	40.4 MMBtu/hr for RMF01 and 28 MMBtu/hr for RMF02
Construction Commenced:	4/24/2000 for RMF01 & 6/12/2000 for RMF02
Control Device:	Lime-injected baghouse (C01), constructed on 6/5/2000

APPLICABLE REGULATIONS:

401 KAR 59:010, *New process operations*

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

40 CFR 64, *Compliance Assurance Monitoring*, for PM.

1. Operating Limitations:

- a. 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)]
- b. *Labeling*. 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)]
- c. *Capture/collection systems*. For each affected source or emission unit equipped with an add-on air pollution control device, the permittee must: [40 CFR 63.1506(c)]

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

- 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)]
- d. *Feed/charge weight.* 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)]
 - A. 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)]
 - B. 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)]
- e. *Group 1 furnace with add-on air pollution control devices.* 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)]
 - A. Initiate corrective action within 1 hour of a bag leak detection system alarm. [40 CFR 63.1506(m)(1)(i)]
 - B. Complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(m)(1)(ii)]
 - C. Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the permittee to initiate corrective action. [40 CFR 63.1506(m)(1)(iii)]

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

- ii. 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)]
 - iii. 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 or above the level established during the performance test. [40 CFR 63.1506(m)(4)]
 - iv. 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)]
 - v. Operate each sidewell furnace such that: [40 CFR 63.1506(m)(6)]
 - A. 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)]
 - B. 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)]
 - vi. The operation of capture/collection systems and control devices associated with natural gas-fired, propane-fired or electrically heated group 1 furnaces that will be idled for at least 24 hours after the furnace cycle has been completed may be temporarily stopped. Operation of these capture/collection systems and control devices must be restarted before feed/charge, flux or alloying materials are added to the furnace. [40 CFR 63.1506(m)(7)]
- f. *Corrective action.* When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the 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. Prior to changing furnace classifications to those not already authorized in Section B of permit V-26-009, the permittee shall submit a permit revision application to the Division to incorporate the applicable requirements from 40 CFR 63, Subpart RRR regarding changes in furnace classification. [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)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Compliance Demonstration Method:**

Refer to 4. Specific Monitoring Requirements (a) and 5. Specific Recordkeeping Requirements (a).

- 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 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2)]
- i. For process weight rates ≤ 0.50 ton/hour: $E = 2.34$
- ii. For process weight rates > 0.50 ton/hr and ≤ 30 tons/hr: $E = 3.59P^{0.62}$
- Where: E = rate of emission in lb/hr, and
P = process weight rate in tons/hr.

Compliance Demonstration Method:

Compliance with the mass emission standard is assumed based on the potential to emit for the emission unit when properly operating the control equipment, when meeting all applicable requirements in 40 CFR 63, Subpart RRR, and performing the required monitoring according to the CAM plan. Refer to 4. Specific Monitoring Requirements (c), 5. Specific Recordkeeping Requirements (d), and 7. Specific Control Equipment Operating Conditions

- c. 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)]
- d. The permittee 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 from a group 1 furnace; [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 from a group 1 furnace. This limit does not apply if the furnace processes only clean charge; and [40 CFR 63.1505(i)(3)]
- iii. 0.20 kg of HCl per Mg (0.40 lb of HCl per ton) of feed/charge or 10 percent of the uncontrolled HCl emissions, by weight. [40 CFR 63.1505(i)(4)]
- iv. 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)]
- v. If the permittee 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, the permittee 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)]
- e. The permittee must comply with the emission limits calculated using the equations for PM and HCl in 40 CFR 63.1505(k)(1) and (2) for each secondary aluminum processing unit. The permittee shall comply with the emission limit calculated using the equation for D/F

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

in 40 CFR 63.1505(k)(3) for each secondary aluminum processing unit: [40 CFR 63.1505(k)]

- i. The permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of PM in excess of: [40 CFR 63.1505(k)(1)]

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

Where:

$L_{ti_{PM}}$ = The PM emission limit for individual emission unit i in 40 CFR 63.1505(i)(1) for a group 1 furnace or in 40 CFR 63.1505(j)(2) for an in-line fluxer;

T_{ti} = The mass of feed/charge for 24 hours for individual emission unit i; and

$L_{c_{PM}}$ = The daily PM 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: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

- ii. The permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of HCl in excess of: [40 CFR 63.1505(k)(2)]

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

Where:

$L_{ti_{HCl}}$ = The HCl emission limit for individual emission unit i in 40 CFR 63.1505(i)(4) for a group 1 furnace or in 40 CFR 63.1505(j)(1) for an in-line fluxer; and

$L_{c_{HCl}}$ = The daily HCl emission limit for the secondary aluminum processing unit which is used to calculate the 3-day, 24-hour HCl emission limit applicable to the SAPU.

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

- iii. The permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of D/F in excess of: [40 CFR 63.1505(k)(3)]

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

Where:

$L_{D/F}$ = The D/F emission limit for individual emission unit i in 40 CFR 63.1505(i)(3) for a group 1 furnace; and

$L_{c_{D/F}}$ = The daily D/F emission limit for the secondary aluminum processing unit which is used to calculate the 3-day, 24-hour D/F emission limit applicable to the SAPU.

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

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

- iv. The permittee may demonstrate compliance with the emission limits of 40 CFR 63.1505(k)(1) through (3) by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of 40 CFR 63.1505(i) and (j). [40 CFR 63.1505(k)(4)]

Compliance Demonstration Method:

- i. 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 equation 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 ($E_{CPM,HCl,D/F}$) is less than or equal to the emission limit for the secondary aluminum processing unit ($L_{CPM,HCl,D/F}$) calculated using Equation 1, 2, and 3 in 40 CFR 63.1505(k). [40 CFR 63.1513(e)(1) – (3)]

$$E_{CPM,HCl,D/F} = \frac{\sum_{i=1}^n (E_{tiPM,HCl,D/F} \times T_{ti})}{\sum_{i=1}^n (T_{ti})}$$

Where:

$E_{CPM,HCl,D/F}$ = The mass-weighted PM, HCl, or D/F emissions for the secondary aluminum processing unit;

$E_{tiPM,HCl,D/F}$ = Measured PM, HCl, or D/F emissions for individual emission unit, or group of co-controlled emission units, i;

T_{ti} = 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)]
- ii. *Periods of startup and shutdown.* The permittee shall demonstrate compliance during periods of startup and shutdown in accordance with 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). Startup and shutdown emissions for group 1 furnaces and in-line fluxers must be calculated individually, and not on the basis of a SAPU. Periods of startup and shutdown are excluded from the calculation of SAPU emission limits in 40 CFR 63.1505(k), the SAPU monitoring requirements in 40 CFR 63.1510(t) and the SAPU emissions calculations in 40 CFR 63.1513(e). [40 CFR 63.1513(f)]

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

- 1) 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)]
- 2) 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)]

3. Testing Requirements:

- a. *Site-specific test plan.* 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. *Initial performance test.* 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 no later than 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. Each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire process operating cycle. Additionally, for batch processes where the length of the process operating cycle is not

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- known in advance, and where isokinetic sampling must be conducted based on the procedures in Method 5 in 40 CFR 60, Appendix A, use the following procedure to ensure that sampling is conducted over the entire process operating cycle: [40 CFR 63.1511(b)(3)]
- A. Choose a minimum operating cycle length and begin sampling assuming this minimum length will be the run time (*e.g.*, if the process operating cycle is known to last from four to six hours, then assume a sampling time of four hours and divide the sampling time evenly between the required number of traverse points); [40 CFR 63.1511(b)(3)(i)]
 - B. After each traverse point has been sampled once, begin sampling each point again for the same time per point, in the reverse order, until the operating cycle is complete. All traverse points as required by Method 1 in 40 CFR 60, Appendix A, must be sampled at least once during each test run; [40 CFR 63.1511(b)(3)(ii)]
 - C. In order to distribute the sampling time most evenly over all the traverse points, do not perform all runs using the same sampling point order (*e.g.*, if there are four ports and sampling for run 1 began in port 1, then sampling for run 2 could begin in port 4 and continue in reverse order.) [40 CFR 63.1511(b)(3)(iii)]
- iv. 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)]
 - v. 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)]
 - vi. Apply 40 CFR 63.1511 paragraphs (b)(1) through (5) 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)]
 - vii. 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 40 CFR 60, Appendix A, 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 and HF. 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)]

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

- d. *Alternative methods.* The permittee may use alternative test methods as provided in 40 CFR 63.1511(d)(1) through (3). [40 CFR 63.1511(d)]
- e. *Repeat tests.* The permittee must conduct a performance test every 5 years following the initial performance test. [40 CFR 63.1511(e)]
- f. *Establishment of monitoring and operating parameter values.* 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 this section and submit the information required by 40 CFR 63.1515(b)(4) in the notification of compliance status report. The permittee may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the 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 this subpart 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 in 40 CFR 63.1511(g)(1) through (4). [40 CFR 63.1511(g)(5)]
- g. With the prior approval of the Division, the 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 shall 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

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- 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. *Group 1 furnace with add-on air pollution control devices.* [40 CFR 63.1512(d)]
- i. The permittee of a group 1 furnace that processes scrap other than clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard). [40 CFR 63.1512(d)(1)]
 - ii. 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)]
 - iii. 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 by 40 CFR 63.1512(d)(1) or (d)(2), to measure emissions from both the sidewell and the hearth. [40 CFR 63.1512(d)(4)]
- i. *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 and HCl and $\mu\text{g TEQ/Mg}$ 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)]
 - A. Emissions of HCl (for determining the emission limit); or [40 CFR 63.1512(j)(2)(i)]
 - B. 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)]
- j. *Feed/charge weight measurement.* During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the permittee must measure (or otherwise determine) and record the total weight of feed/charge to the affected source

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

or emission unit for each of the three test runs and calculate and record the total weight. If the permittee chooses to demonstrate compliance on the basis of the aluminum production weight the permittee 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)]

- k. *Inlet gas temperature.* 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. *Flux injection rate.* 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 the equation below. [40 CFR 63.1512(o)(3)]

$$W_t = F_1W_1 + F_2W_2$$

Where:

W_t = Total chlorine usage, by weight;

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

W_1 = Weight of reactive flux gas injected;

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

W_2 = Weight of solid reactive flux

- 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. *Lime injection.* 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

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

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

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

Where:

E = Emission rate of PM or HCl, in kg/Mg (lb/ton) of feed;
 C = Concentration of PM or HCl, in g/dscm (gr/dscf);
 Q = Volumetric flow rate of exhaust gases, in dscm/hr (dscf/hr);
 K₁ = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
 P = Production rate, in Mg/hr (ton/hr).

- o. Use Equation 7A of 40 CFR 63.1513 to determine compliance with an emission limit for D/F: [40 CFR 63.1513(b)(2)]

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

Where:

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

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

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

Where:

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

- q. *Conversion of D/F measurements to TEQ units.* 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*, incorporated by reference see 40 CFR 63.14. [40 CFR 63.1513(d)]
- r. 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

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

specified in either 40 CFR 63.1516(b)(3)(i)(A) or (B). [40 CFR 63.1516(b)(3)(i)]

- s. Performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet. [401 KAR 50:045, Section 1, and 401 KAR 59:005, Section 2(2)]

4. Specific Monitoring Requirements:

- a. The permittee shall determine the opacity of emissions daily using U.S. EPA Reference Method 9. The monitoring shall be performed while the affected facility is in operation. [401 KAR 52:020, Section 10]
- b. The permittee shall monitor the following, for each emission point: [401 KAR 52:020, Section 10]
 - i. The monthly total process weight;
 - ii. The monthly hours of operation; and
 - iii. The monthly natural gas usage in MMscf.
- c. *Operation, maintenance, and monitoring (OM&M) plan.* The permittee must prepare and implement for each new or existing affected source and emission unit, a written OM&M plan. The permittee must submit the OM&M plan to the Division no later than 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 and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee must 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. 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 this section or this subpart, the permittee must promptly make all necessary revisions and resubmit the revised plan. If the permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the permittee submits a description of the changes and a revised plan incorporating them to the Division. Each plan must 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)]
 - A. 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)

- B. 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)]
 - A. 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)]
 - B. 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)]
- d. *Labeling.* 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)]
- e. *Capture/collection system.* 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. 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 63.1510(d), the inspection may satisfy the requirements of 40 CFR 63.1510(d), 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)]
 - A. Conduct annual flow rate measurements using EPA Methods 1 and 2 in 40 CFR part 60, Appendix A, or conduct annual verification of a permanent total enclosure using EPA Method 204; or the permittee may follow one of the three alternate procedures described in 40 CFR 63.1510(d)(ii), (iii), or (iv) to maintain system

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

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) of this section. A deviation, as defined in 40 CFR 63.1510(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)]

- B. 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)(ii)]
1. A flow rate indicator consisting of a pitot tube and differential pressure gauge (Magnehelic®, manometer or other differential pressure gauge) is installed 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)]
 2. The flow rate indicator is installed and operated in accordance with the manufacturer's specifications; and [40 CFR 63.1510(d)(2)(ii)(B)]
 3. The differential pressure is recorded during the Method 2 performance test series; and [40 CFR 63.1510(d)(2)(ii)(C)]
 4. 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)]
 5. 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)]
- C. 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)]
1. 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)]
 2. 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

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

- most recent Method 2 performance test series; or [40 CFR 63.1510(d)(2)(iii)(B)]
3. 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)]
 4. For booth-type hoods, hotwire anemometer measurements of hood face velocity are performed simultaneously with 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 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)]
- D. As an alternative to the annual verification of a permanent total enclosure using EPA Method 204, verification can be performed once every 5 years, provided that: [40 CFR 63.1510(d)(2)(iv)]
1. 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)]
 2. 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)]
 3. 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)]
- f. *Feed/charge weight.* 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 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)]

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

- 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)]
- g. *Fabric filter inlet temperature.* 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 40 CFR 63, Subpart A. [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)]
 - A. 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)]
 - B. 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)]
 - C. 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)]
- h. *Lime injection.* 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)]
 - A. Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the 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)]
 - B. 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)]
 - C. 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 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 your 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 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)]
- i. *Total reactive flux injection rate.* These requirements apply to the permittee of a group 1 furnace. 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)]
 - A. 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)]
 - B. 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)]
 - C. 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)]

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

- A. Gaseous or liquid reactive flux other than chlorine; and [40 CFR 63.1510(j)(3)(i)]
- B. 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 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)]
- j. *Sidewell group 1 furnace with add-on air pollution control devices.* 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 whether the level of molten metal was above the top of the passage between the sidewell and hearth during 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)]
- k. Site-specific requirements for secondary aluminum processing units. [40 CFR 63.1510(s)]
 - i. A permittee of a secondary aluminum processing unit at a facility must include, within the OM&M plan prepared in accordance with 40 CFR 63.1510(b), the following information: [40 CFR 63.1510(s)(1)]
 - A. The identification of each emission unit in the secondary aluminum processing unit; [40 CFR 63.1510(s)(1)(i)]
 - B. The specific control technology or pollution prevention measure to be used for each emission unit in the secondary aluminum processing unit and the date of its installation or application; [40 CFR 63.1510(s)(1)(ii)]
 - C. The emission limit calculated for each secondary aluminum processing unit and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit; [40 CFR 63.1510(s)(1)(iii)]
 - D. Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of this subpart; and [40 CFR 63.1510(s)(1)(iv)]
 - E. The monitoring requirements applicable to each emission unit in a secondary aluminum processing unit and the monitoring procedures for daily calculation of

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

- the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t). [40 CFR 63.1510(s)(1)(v)]
- ii. The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions: [40 CFR 63.1510(s)(2)]
 - A. Any averaging among emissions of differing pollutants; [40 CFR 63.1510(s)(2)(i)]
 - B. The inclusion of any affected sources other than emission units in a secondary aluminum processing unit; [40 CFR 63.1510(s)(2)(ii)]
 - C. The inclusion of any emission unit while it is shutdown; or [40 CFR 63.1510(s)(2)(iii)]
 - D. The inclusion of any periods of startup or shutdown in emission calculations. [40 CFR 63.1510(s)(2)(iv)]
 - iii. To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the permittee must submit a request to the Division containing the information required by 40 CFR 63.1510(s)(1) and obtain approval of the Division prior to implementing any revisions. [40 CFR 63.1510(s)(3)]
1. *Secondary aluminum processing unit.* Except as provided in 40 CFR 63.1510(u), the permittee must calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F (and HF for uncontrolled group 1 furnaces) for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the permittee must: [40 CFR 63.1510(t)]
 - i. Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the feed/charge weight information required in 40 CFR 63.1510(e). If the permittee chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis. [40 CFR 63.1510(t)(1)]
 - ii. Multiply the total feed/charge weight to the emission unit, or the weight of aluminum produced by the emission unit, for each emission unit for the 24-hour period by the emission rate (in lb/ton of feed/charge) for that emission unit (as determined during the performance test) to provide emissions for each emission unit for the 24-hour period, in pounds. [40 CFR 63.1510(t)(2)]
 - iii. Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU, or the weight of aluminum produced by the SAPU over the 24-hour period to provide the daily emission rate for the SAPU. [40 CFR 63.1510(t)(3)]
 - iv. Compute the 24-hour daily emission rate using the following equation: [40 CFR 63.1510(t)(4)]

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

Where,

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

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

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

- ER_i = The measured emission rate for emission unit i as determined in the performance test (lb/ton or $\mu\text{g}/\text{Mg}$ of feed/charge); and
- n = The number of emission units in the secondary aluminum processing unit.
- v. Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3. The SAPU is in compliance with an applicable emission limit if the 3-day, 24-hour rolling average for each pollutant is no greater than the applicable SAPU emission limit determined in accordance with 40 CFR 63.1505(k)(1)-(3). [40 CFR 63.1510(t)(4)]
- m. *Secondary aluminum processing unit compliance by individual emission unit demonstration.* 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 is in compliance with the applicable emission limits for the emission unit. [401 CFR 63.1510(u)]
- n. *Alternative monitoring methods.* 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). [401 CFR 63.1510(w)]
- o. Refer to **Appendix A** for CAM requirements pursuant to 40 CFR 64.
- p. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the qualitative visual observations made as specified in 4. **Specific Monitoring Requirements (a)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any corrective action taken, and any U.S. EPA Reference Method 9 readings conducted. [401 KAR 52:020, Section 10]
- b. The permittee shall maintain records of the following, for each emission point: [401 KAR 52:020, Section 10]
- The monthly total process weight;
 - The monthly hours of operation.
 - The monthly natural gas usage in MMscf.
- c. As required by 40 CFR 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by 40 CFR 63, Subpart A and Subpart RRR. [40 CFR 63.1517(a)]
- 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)]

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

- 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)]
- d. 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)]
 - A. 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)]
 - 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)]
 - A. 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)]
 - B. If lime feeder setting is monitored, records of daily and monthly 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)]
 - C. If lime addition rate for a noncontinuous lime injection system is monitored pursuant to the approved alternative monitoring requirements in 40 CFR 63.1510(v), records of the time and mass of each lime addition during each operating cycle or time period used in the performance test and calculations of the average lime addition rate (lb/ton of feed/charge). [40 CFR 63.1517(b)(4)(iii)]

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

- iv. For each group 1 furnace (with or without add-on air pollution control devices), 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. Operating logs for each group 1 sidewall furnace with add-on air pollution control devices documenting conformance with operating standards for maintaining the level of molten metal above the top of the passage between the sidewall and hearth during reactive flux injection and for adding reactive flux only to the sidewall or a furnace hearth equipped with a control device for 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:
 - A. OM&M plan; and [40 CFR 63.1517(b)(16)(ii)]
 - B. Site-specific secondary aluminum processing unit emission plan (if 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 must maintain the following records; [40 CFR 63.1517(b)(18)]
 - A. 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)]
 - B. 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)]

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

- 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 (b)(19)(i) or (ii) of this section. [40 CFR 63.1517(b)(19)]
 - A. 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)]
 - 1) The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(i)(A)]
 - 2) The quantities of feed/charge and flux introduced during each startup and shutdown; and [40 CFR 63.1517(b)(19)(i)(B)]
 - 3) 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)]
 - B. To demonstrate compliance based on performance tests, the permittee must maintain the following records: [40 CFR 63.1517(b)(19)(ii)]
 - 1) The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(ii)(A)]
 - 2) The measured emissions in lb/hr or µg/hr or ng/hr; [40 CFR 63.1517(b)(19)(ii)(B)]
 - 3) The measured feed/charge rate in tons/hr or Mg/hr from your 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)]
 - 4) An explanation to support that such conditions are considered representative startup and shutdown operations. [40 CFR 63.1517(b)(19)(ii)(D)]
 - e. 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)]
 - f. 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)]
 - g. Refer to **SECTION F** for general recordkeeping requirements.
- 6. Specific Reporting Requirements:**
- a. *Bag leak detection system.* The permittee of an affected source or emission unit using a bag leak detection system must submit the information described in 40 CFR 63.1515(b)(6) as part of the notification of compliance status report to document conformance with the specifications and requirements in 40 CFR 63.1510(f). [40 CFR 63.1512(q)]

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

- b. *Labeling.* The permittee 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)]
- c. *Capture/collection system.* The permittee of a new or existing affected source or emission unit with an add-on control device must submit the information described in 40 CFR 63.1515(b)(2) as part of the notification of compliance status report to document conformance with the operational standard in 40 CFR 63.1506(c). [40 CFR 63.1512(s)]
- d. *Excess emissions/summary report.* 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)]
 - A. 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)]
 - B. 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)]
 - C. 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)]
 - D. 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)]
 - E. 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)]
 - A. For each sidewall group 1 furnace with add-on air pollution control devices: “Each furnace was operated such that the level of molten metal remained above the top of the passage between the sidewall and hearth during reactive fluxing, and reactive flux, except for cover flux, was added only to the sidewall or to a furnace hearth equipped with an add-on air pollution control device for PM, HCl, and D/F emissions during this reporting period.” [40 CFR 63.1516(b)(2)(iii)]
 - B. 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

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)]
- A. 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)]
1. For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (https://www3.epa.gov/ttn/chiefert/ert_info.html), the permittee must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>.) Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If the permittee claims that some of the performance test information being submitted is confidential business information (CBI), the permittee must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph. [40 CFR 63.1516(b)(3)(i)(A)]
 2. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR 63.13.
- 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)]
- e. *Annual compliance certifications.* For the purpose of annual certifications of compliance required by 40 CFR Part 70 or 71, 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)]
- f. 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

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

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)]

- 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, 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. 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)]
 - i. 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)]
 - j. Refer to **Appendix A** for reporting requirements under 40 CFR 64.
 - k. Refer to **SECTION F** for general reporting requirements.
7. **Specific Control Equipment Operating Conditions:**
- a. *Fabric filters and lime-injected fabric filters.* 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

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

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)]
 - A. 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)]
 - B. 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)]
 - C. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.1510(f)(1)(iii)]
 - D. The bag leak detection system sensor must provide output of relative or absolute PM loadings. [40 CFR 63.1510(f)(1)(iv)]
 - E. 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)]
 - F. The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. [40 CFR 63.1510(f)(1)(vi)]
 - G. For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter. [40 CFR 63.1510(f)(1)(vii)]
 - H. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.1510(f)(1)(viii)]
 - I. The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.1510(f)(1)(ix)]
 - J. 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)]

- b. Refer to **SECTION E**.

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

EP #006 Die Cast Machines (DC01-14)

Description: Molten aluminum is transferred via ladle from a holding furnace (EP #005) to a die caster for injection into each die. The die casting operations consist of the following units:

Control Devices: None

Die Cast Machine ID #	Max. Die Lube Throughput (gal/hr)	Max. Aluminum Throughput (tons/hr)	Construction Commenced
DC01	3.0	1.50	1994
DC02	3.0	1.50	1994
DC03	3.0	1.50	1994
DC04	3.0	1.50	1994
DC05	3.0	1.50	1994
DC06	3.0	1.50	1994
DC07	3.0	1.50	1994
DC08	3.0	1.50	1994
DC09	3.0	1.50	1994
DC010	3.0	2.25	2000
DC011	3.0	2.25	2000
DC012	3.0	2.25	2000
DC013	3.0	2.25	2000
DC014	3.0	2.25	2000

APPLICABLE REGULATIONS:

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

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**2. Emission Limitations:**

The permittee 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)]

- a. More than five (5) minutes of emission time during any sixty (60) minute observation period; or [401 KAR 63:010, Section 3(2)(a)]
- b. 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 (b)** and 5. **Specific Recordkeeping Requirements (b)**.

3. Testing Requirements:

Performance testing shall be conducted if required by the Cabinet. [401 KAR 50:045, Section 1]

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 U.S. EPA 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. Qualitative fugitive emissions observations conducted (add frequency here) including the date, time, initials of observer, whether any fugitive dust emissions were observed,
 - ii. Any U.S. EPA Reference Method 22 performed and field records identified in U.S. EPA Reference Method 22.
 - iii. Any corrective action taken and the results.
- c. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
 - i. The monthly total process weight;

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

- ii. The monthly hours of operation.
 - iii. SDS for all lubricants used.
- d. Refer to **SECTION F** for general recordkeeping requirements.
- 6. Specific Reporting Requirements:**
Refer to **SECTION F** for general reporting requirements.

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

EP #014 BCP Rotoblasters (34 & 35)

Description: Two batch operated shot blasters
 Maximum Capacity: 5760 ft²/hr, using 57.5 lbs/hr of steel shot, each
 Control Device: Shotblast wet scrubber
 Construction Commenced: 1/13/1994

APPLICABLE REGULATIONS:

401 KAR 59:010, *New process operations*

STATE-ORIGIN REQUIREMENTS:

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

1. Operating Limitations:

The permittee shall operate the associated control equipment for each emission unit according to manufacturer's specifications at all times when the corresponding emission unit is in operation. [401 KAR 63:020]

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 (a)** and **5. Specific Recordkeeping Requirements (a)**.

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 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2)]

- | | |
|---|--------------------|
| i. For process weight rates ≤ 0.50 ton/hour: | E = 2.34 |
| ii. For process weight rates > 0.50 ton/hr and ≤ 30 tons/hr: | E = $3.59P^{0.62}$ |

Compliance Demonstration Method:

Compliance with the mass emission standard is assumed based on the potential to emit for the emission unit when properly operating the control equipment. Refer to **4. Specific Monitoring Requirements (c)**, **5. Specific Recordkeeping Requirements (c)** and **(d)**, and **7. Specific Control Equipment Operating Conditions**.

c. The permittee shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or

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

procedures and emission potential will be made on an individual basis by the Cabinet. [401 KAR 63:020, Section 3]

Compliance Demonstration Method:

Based upon the emission rates of toxic and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. Testing Requirements:

Performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet. [401 KAR 50:045, Section 1, and 401 KAR 59:005, Section 2(2)]

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than once every seven (7) calendar days while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), 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]
- b. The permittee shall monitor the following, for each emission point: [401 KAR 52:020, Section 10]
 - i. The monthly total process weight; and
 - ii. The monthly hours of operation.
- c. The permittee shall monitor the pressure drop and water flow rate through the scrubber on a daily basis. [401 KAR 52:020, Section 10]
- d. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the qualitative visual observations made as specified in **4. Specific Monitoring Requirements (a)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any corrective action taken, and any U.S. EPA Reference Method 9 readings conducted. [401 KAR 52:020, Section 10]
- b. The permittee shall maintain records of the following, for each emission point: [401 KAR 52:020, Section 10]
 - i. The monthly total process weight;
 - ii. The monthly hours of operation.
- c. The permittee shall keep records of the daily measurements of the pressure drop and water flow rate through the scrubber. [401 KAR 52:020, Section 10]

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

- d. The permittee shall maintain records of the manufacturer's specifications for the scrubber. [401 KAR 52:020, Section 10]
- e. 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, operate, and maintain the scrubber according to the manufacturer's specifications. [401 KAR 63:020]
- b. The permittee shall install, calibrate at least annually, and maintain a device for the measurement of pressure drop across the scrubber and water flow rate. [401 KAR 52:020, Section 10]
- c. The permittee shall maintain the pressure drop and water flow rate through the scrubber within the range recommended by the manufacturer or established during the most recent stack test. [401 KAR 52:020, Section 10]
- d. The permittee shall maintain calibration records for all monitoring devices. [401 KAR 52:020, Section 10]
- e. Refer to **SECTION E**.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**EP #017 Backup Generator (GEN 01)**

Description: An existing emergency stationary engine that serves as a backup power source for the induction furnaces in case of power failure.

Model: Caterpillar model #3508

Construction: 7/31/2000

Fuel: Diesel

Rated Capacity: 1350 HP

Control Device: None

APPLICABLE REGULATIONS:

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

1. Operating Limitations:

- a. The permittee must be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR 63, Subpart ZZZZ that apply at all times. [40 CFR 63.6605(a)]
- 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. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. 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 63.6605(b)]
- c. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to 40 CFR 63, Subpart ZZZZ apply. [40 CFR 63.6625(h)]
 - i. The permittee must meet the following requirements, except during periods of startup: [40 CFR 63, Subpart ZZZZ, Table 2c(1)]
 - A. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first. [40 CFR 63, Subpart ZZZZ, Table 2c(1)(a)]
 - B. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; [40 CFR 63, Subpart ZZZZ, Table 2c(1)(b)]
 - C. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary. [40 CFR 63, Subpart ZZZZ, Table 2c(1)(b)]

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

- ii. During periods of startup, the permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63, Subpart ZZZZ, Table 2c(1)]
 - iii. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in table 2c of 40 CFR 63, Subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, state or local law under which the risk was deemed unacceptable. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 1]
 - iv. Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in table 2c of 40 CFR 63, Subpart ZZZZ. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 2]
 - v. Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 3]
- d. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil and filter change requirement in Tables 2c to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil and filter in table 2c to 40 CFR 63, Subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil and filter. If any of the limits are exceeded, the permittee must change the oil and filter within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil and filter within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil and filter changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6525(i)]
- e. The permittee must operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640 (f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (4), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) through

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

- (4), the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and must meet all requirements for non-emergency engines. [40 CFR 63.6640(f)]
- i. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
 - ii. The permittee may operate the emergency stationary RICE for the purpose specified in 40 CFR 63.6640(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by 40 CFR 63.6640(f)(2). [40 CFR 63.6640(f)(2)]
 - A. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(2)(i)]
 - iii. Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3)]

2. Emission Limitations:

None

3. Testing Requirements:

Pursuant to 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 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 fuel usage; and
 - ii. The monthly hours of operation and purpose of operation.
- b. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee must keep the records described in 40 CFR 63.6655(a)(1) through (a)(5), (b)(1) through (b)(3) and (c). [40 CFR 63.6655(a)]
 - i. A copy of each notification and report that the permittee submitted to comply with 40 CFR 63, Subpart ZZZZ, including all documentation supporting any Initial Notification

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

- or Notification of Compliance Status that the permittee submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]
- ii. Records of the occurrence and duration (in hours) of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]
 - iii. Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). [40 CFR 63.6655(a)(3)]
 - iv. Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(4)]
 - v. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]
- b. The permittee must keep the records required in Table 6 of 40 CFR 63, Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies. [40 CFR 63.6655(d)]
 - c. The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the permittee's own maintenance plan. [40 CFR 63.6655(e)]
 - d. The permittee must maintain records of the following. [401 KAR 52:020, Section 10]
 - i. The monthly fuel usage; and
 - ii. The monthly hours of operation and purpose of operation.
 - e. Records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a)]
 - f. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.6660(b)]
 - g. The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(c)]
 - h. Refer to **SECTION F** for general recordkeeping requirements.
- 6. Specific Reporting Requirements:**
- a. The permittee must report each instance in which the permittee did not meet each operating limitation in Table 2d to 40 CFR 63, Subpart ZZZZ that applies. These instances are deviations from the emission and operating limitations in 40 CFR 63, Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR 63.6650. [40 CFR 63.6640(b)]

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

- b. The permittee shall submit each report in Table 7 of 40 CFR 63, Subpart ZZZZ that applies. [40 CFR 63.6650(a)]
- c. Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report by the date in Table 7 of 40 CFR 63, Subpart ZZZZ and according to the requirements in 40 CFR 63.6650(b)(1) through (b)(9). [40 CFR 63.6650(b)]
- d. The Compliance report must contain the information in 40 CFR 63.6650(c)(1) through (8). [40 CFR 63.6650(c)]
 - i. Company name and address. [40 CFR 63.6650(c)(1)]
 - ii. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR 63.6650(c)(2)]
 - iii. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.6650(c)(3)]
 - iv. If the permittee had a malfunction during the reporting period, the compliance report must include the starting and ending date and time, the duration (in hours), and a brief description 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 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 63.6605(b), including actions taken to correct a malfunction. [40 CFR 63.6650(c)(4)]
 - v. If there are no deviations from any emission or operating limitations that apply to the permittee, a statement that there were no deviations from the emission or operating limitations during the reporting period. [40 CFR 63.6650(c)(5)]
 - vi. Engine site rating in brake HP, year construction of the engine commenced (as defined in 40 CFR 63.2, where the exact year is not known, provide the best estimate), and type of engine (CI, SI 2SLB, SI 4SLB, or SI 4SRB). [40 CFR 63.6650(c)(7)]
 - vii. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. [40 CFR 63.6650(c)(8)]
- e. For each deviation from an emission or operating limitation that occurs for a stationary RICE where the permittee is not using a CMS to comply with the emission or operating limitations in 40 CFR 63, Subpart ZZZZ, the Compliance report must contain the information in 40 CFR 63.6650(c)(1) through (8) and the information in 40 CFR 63.6650(d)(1) and (2). [40 CFR 63.6650(d)]
 - i. The total operating time (in hours) of the stationary RICE at which the deviation occurred during the reporting period. [40 CFR 63.6650(d)(1)]
 - ii. Information on the number, duration (in hours), and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [40 CFR 63.6650(d)(2)]
 - iii. A description of any changes in processes, or controls since the last reporting period. [40 CFR 63.6650(d)(3)]
- f. The permittee must report all deviations as defined in 40 CFR 63, Subpart ZZZZ in the semiannual monitoring report required by **Section F**. If the permittee submits a Compliance

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

report pursuant to table 7 of 40 CFR 63, Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by **Section F**, and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR 63, Subpart ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. Beginning on February 26, 2025, the semiannual and annual compliance report required in table 7 of this subpart must be submitted according to 40 CFR 63.6650(i). Only those elements required under 40 CFR 63, Subpart ZZZZ are required to be submitted according to 40 CFR 63.6650(i). [40 CFR 63.6650(f)]

- g. The permittee shall submit all semiannual and annual subsequent compliance reports using the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for 40 CFR 63, Subpart ZZZZ and following the procedure specified in 40 CFR 63.9(k), except any CBI must be submitted according to the procedures in 40 CFR 63.6645(h). The date report templates become available will be listed on the CEDRI website. Unless the Administrator or Division or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in 40 CFR 63, Subpart ZZZZ, regardless of the method in which the report is submitted. [40 CFR 63.6650(i)]
- h. Refer to **SECTION F** for general reporting requirements.

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.

<u>Description</u>	<u>Generally Applicable Regulation</u>	
1. Convenience water heaters (<1.0 MMBtu/hr)	401 KAR 59:010	
	401 KAR 63:020	
2. Convenience space heaters (<1.0 MMBtu/hr)	401 KAR 59:010	
	401 KAR 63:020	
3. Natural gas-fired HVAC system (<1.0 MMBtu/hr)	401 KAR 59:010	
	401 KAR 63:020	
4. Internal combustion engines (non-road)	401 KAR 63:020	
5. Fire control equipment (excluding emergency fire pump engines)	N/A	
6. 0.25 mile paved haul roads and yard	401 KAR 63:010	
7. Equipment maintenance	N/A	
8. Wisconsin oven (0.6 MMBtu/hr) 401 KAR 63:020	401 KAR 59:010	
9. Process water treatment	401 KAR 63:010	
10. Die lube tanks 1-3	(5000 gal, each)	N/A
11. Indoor holding tank (4500 gal)	N/A	
12. Squeeze cast mixing tank (400 gal)	N/A	
13. Furnace pump heaters	N/A	
14. Cooling towers	401 KAR 59:010	
15. Supplemental burner (1.0 MMBtu/hr) 401 KAR 63:020	401 KAR 59:010	
16. Rotary degassing unit utilizing an inert gas to achieve degassing of the melt (Not in-line)	N/A	
17. Benchtop 550 Cubic inch Electric Muffle Furnace for Testing Moisture/Oil Content of Aluminum Pucks (0.0075 Btu/hr)	N/A	
18. Test furnace for melting aluminum for alloy testing	N/A	

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

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. HCl, PM, opacity, and D/F 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.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

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.

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;
 - 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

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

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 42101-3356

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
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 PROVISIONS1. 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.].
- 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

SECTION G - GENERAL PROVISIONS (CONTINUED)

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.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by permit V-26-009.

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.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- 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 NO_x 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;
 - (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.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- 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*.
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

None

ATTACHMENT A

**Compliance Assurance Monitoring Plan
(CAM Plan)
for PM Emissions
from Reverberatory Melt Furnaces
(RMF01 & RMF02)**

Control Assurance Monitoring Plan for PM₁₀ Emissions from Reverberatory Melt Furnaces (RMF01 and RMF02)

1.0 Introduction

1.1 Group 1 Reverberatory Furnaces

The facility operates two (2) Reverberatory furnaces (RF01 and RF02) that are used to melt both clean charge and aluminum scrap to produce molten aluminum. These furnaces are defined as Group 1 furnaces under 40 CFR 63, Subpart RRR and are subject to emission standards for dioxin/furans (D/F), hydrogen chloride (HCl) and particulate matter (PM). Emissions from these furnaces are captured and directed to a dedicated lime-injected baghouse for control of these regulated pollutants.

Clean materials (e.g., ingots, sows, etc.) are charged into the main hearth of the furnaces, while scrap and solid fluxing materials are charged into the sidewell; chlorine is also injected into the sidewell to remove magnesium from the molten aluminum. Under normal production, the furnace burners and melt pump run continuously with the chlorine flux injection system running on a charge weight basis. The surface of the molten aluminum in the main hearth is periodically skimmed to remove dross. Because of the continuous operation capability of the furnaces, tapping of the molten aluminum is conducted as needed by transferring the molten aluminum to preheated ladles.

Emissions from the two reverberatory furnaces are captured and routed to the baghouse for control of the regulated pollutants. The capture and collection systems are designed in accordance with the 23rd edition of the “Industrial Ventilation: A Manual of Recommended Practice” to control regulated pollutants.

Damper positions are locked in place and not subject to manual adjustment as part of either routine or non-routine operating conditions. The automatic baghouse air inlet air-dilution damper is set to achieve 100% Open at a temperature significantly lower than normal operating temperatures to assure optimal hood performance and to prevent filter media damage deriving from customary temperature excursions associated with routine furnaces operations.

Nemak USA Inc.’s Glasgow facility operates a Continuous Monitoring System (CMS) which is used to monitor and record operating parameters identified in 40 CFR 63, Subpart RRR to minimize emissions. A bag leak detection system is used to continuously monitor PM emissions from the baghouse. Operating parameters for the leak detection system were established and calibrated on-site using the EPA’s Fabric Filter Bag Leak Detection Guidance document. The bag leak detection system is regularly checked to ensure that the settings are correct and that the alarm is functioning. A baghouse inlet temperature digital monitoring system is used to monitor the temperature of the gases entering the baghouse. (See Appendix K of the facility Operation, Maintenance, and Monitoring (OM&M) Plan for CMS requirements applicable to the bag leak detection and the baghouse inlet temperature.) The lime flow into the baghouse is controlled by an adjustable frequency drive starter (in hertz, HZ) that controls the motor rotation speed of the feeding device that distributes the required amount of lime. The Hz setting is calibrated to a lime flow in pounds per hour that is measured by collecting and weighing the amount of lime injected into the baghouse at the given motor setting.

Affected emission units covered by this CAM Plan are summarized in Table 1.0.

**Table 1.0
Emission Units Subject to CAM Requirements**

Emission Unit	Control Device Description	Source ID	Pollutant
RMF01	Fabric Filter with dry lime injection	003	PM
RMF02	Fabric Filter with dry lime injection	003	PM

1.2 Applicable Requirements

Applicable requirements that result in applicability of CAM are summarized in Table 2.0.

**Table 2.0
Applicable Requirements Resulting in CAM Applicability**

Emission Unit	Requirement	Basis
RMF01	PM shall not exceed $E=3.59P^{0.62}$; P=Tons/hr	401 KAR 59:010, Section 3(2)
RMF02	PM shall not exceed $E=3.59P^{0.62}$; P=Tons/hr	401 KAR 59:010, Section 3(2)

1.3 Control Technology

Emissions from the Group 1 furnaces are directed to a lime injected baghouse which controls the emissions of Particulate Matter (PM), hydrogen chloride (HCl), and dioxins/furans (D/F). The operating procedures for these control devices are to be followed as specified by the manufacturer in the operating manual and internal standard operating procedures. The manufacturer’s Operation and Maintenance manuals are incorporated by reference in the OM&M Plan (see OM&M Plan). Daily records are maintained. The operation and maintenance of the baghouse is administered through the CMMS (which is the company’s Preventive Maintenance system) and the facility’s operating procedure for the baghouse.

2.0 CAM Plan

**Table 3.0
Monitoring Approach**

	Indicator No. 1	Indicator No. 2	Indicator No. 3
Indicator	Visible emissions	Bag Leak Detection	Inspection / Maintenance
Measurement Approach	Method 9 observations performed daily.	Each monitoring device shall be installed, operated, calibrated, and maintained in a manner consistent with EPA, Office of Air Quality Planning and Standards, Fabric Filter Bag Leak Detection Guidance (EPA-454/R-98-015).	Daily inspection according to I/M checklist; maintenance performed as needed.
Indicator Range	The indicator range is an opacity less than 10 percent (6-min avg.). Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as a triboelectric signal greater than 70 percent of scale for 15 seconds. Excursions trigger an inspection, corrective action, and a reporting requirement. A triboelectric signal of zero during process operations will trigger an investigation for control device bypass.	N/A

	Indicator No. 1	Indicator No. 2	Indicator No. 3
Performance Criteria			
Data Representativeness	Observations are performed at the baghouse exhaust while the baghouse is operating.	The data are collected at the emission point – the probe is located inside the baghouse exhaust duct. The signal is directly proportional to the amount of particulate in the exhaust if factors such as velocity and particle size remain relatively constant.	Inspections are performed at the baghouse.
Verification of Operational Status	N/A	N/A	N/A
QA/QC Practices and Criteria	Observer is certified annually.	The bag leak detection probe is inspected periodically (at least monthly) for dust buildup. The monitor has an automatic internal calibration function for the electronics.	Qualified personnel perform inspection.
Monitoring Frequency	Daily 6-minute observation.	The bag leak detection signal is monitored continuously.	Daily inspection.
Data Collection Procedures	Method 9 observations are conducted by a certified RM9 observer.	The CMS records the bag leak detection signal continuously.	Records are maintained to document the daily inspection and any required maintenance.
Average Period	6-minutes	None	N/A

2.1 Rational for Performance Criteria Selection

Background

The monitoring approach outlined here applies to melt furnaces baghouse C01. The baghouse controls dust from RMF01 and RMF02 melt furnaces.

Rational for Selection of Performance Indicators

Visible emissions (opacity) was selected as a performance indicator because it is indicative of good operation and maintenance of the baghouse. When the baghouse is operating optimally, there will be little visible emissions from the exhaust. In general, an increase in visible emissions indicates reduced performance of the baghouse (e.g., loose or torn bags). These emissions units have an opacity limit of 20 percent. A 6-minute Method 9 observation is performed daily. The excursion level has been set such that an excursion can be addressed before an exceedance of the opacity limit occurs.

The bag leak monitor operates using the principles of frictional electrification (triboelectricity) and charge transfer. As particles in the baghouse exhaust gas stream collide with the sensor rod mounted on the inside of the exhaust duct, an electrical charge is transferred, generating a small current that is measured and amplified by the triboelectric monitor. The processing electronics are configured to produce a continuous output alarm at a specified level.

The signal produced by the triboelectric monitor is generally proportional to the particulate mass flow, but can be affected by changes in a number of factors, such as humidity, exhaust gas velocity, and particle size. However, in baghouse applications, these factors are not expected to vary considerably during normal operation. Therefore, an increase in the triboelectric signal indicates an increase in particulate emissions from the baghouse.

Pulse-jet baghouse filters are cleaned using a burst of air, which dislodges the filter cake from bags and causes a momentary increase in particulate emissions until the filter cake builds up again. The triboelectric monitor can be configured with a short (or no) averaging time to display the baghouse cleaning cycle activity and monitor increases in a particular row's cleaning peak, or with a long signal averaging period to detect an overall increasing trend in the baghouse's emissions. Trends in the cleaning peaks are monitored and high cleaning peaks that may indicate leaking or broken bags requiring maintenance trigger an alarm. Bypass of the control device will only occur if the baghouse fan is not operating. In this case, the triboelectric signal would be zero.

Implementation of a baghouse inspection and maintenance (I/M) program provides assurance that the baghouse is in good repair and operating properly. Once per day, proper operation of the compressor is verified to ensure that the bags are being cleaned. Proper operation of the cleaning cycle facilitates gas flow through the baghouse and the removal of particulate, and also helps prevent blinding of the filter bags. Operation at low pressure can result in inadequate cleaning, especially near the bottoms of the bags. Other items on the daily I/M checklist include the dust pump, induced-draft fans, reverse air fan, dust screws, rotary feeders, bins, cleaning cycle operation, leak check, and compartment inspection for bad bags.

Rational for Selection of Indicator Ranges

The indicator range for opacity is a 6-minute average opacity of less than 10 percent. This indicator range was selected based on the facility's permit requirements and historical operating data. Review of data collected in May 1997 indicate an average opacity of 10.9 percent (6-minute average) for baghouse No. 1, with 6-minute average readings ranging from 2.9 to 19.8 percent. For baghouse No. 2, the average was 11.5 percent, with 6-minute average readings ranging from 3.1 to 18.8 percent. The 6-minute average is made up of observations taken at 15-second intervals. The excursion level has been set such that an excursion can be addressed before an exceedance of the opacity limit occurs.

An excursion is defined as a triboelectric monitor signal greater than 70 percent of scale for 15 seconds. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

The triboelectric monitoring system has the capability for dual alarms: an early warning alarm and a broken bag alarm. The early warning alarm is set just above the normal cleaning peak height (40 percent of scale). The broken bag alarm was set by injecting dust into the clean air plenum of the baghouse and noting the signal level just before the point at which visible emissions were observed at the baghouse exhaust (70 percent of scale). A 15-second delay time is also used, so the alarm won't activate due to short spikes that are not associated with the cleaning cycle and do not indicate broken bags (e.g., a short spike due to a small amount of particulate that accumulates on the duct wall and then breaks free).