

**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: Novelis Corporation
Mailing Address: 8155 Old Railroad Lane
Guthrie, KY 42234

Source Name: Novelis Corporation
Mailing Address: 8155 Old Railroad Lane
Guthrie, KY 42234

Source Location: Same as above

Permit: V-22-011 R2
Agency Interest: 136118
Activity: APE20250002
Review Type: Title V / Title I - PSD
Source ID: 21-219-00039

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

County: Todd

Application
Complete Date: February 17, 2022
Issuance Date: July 25, 2022
Revision Date:
Expiration Date: July 25, 2027

**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-22-011	Initial	APE20210003	2/17/2022	7/25/2022	Initial Title V/Title I Permit
V-22-011 R1	Sig Rev	APE20230001	10/2/2023	6/7/2024	As-Built Revision to the initial project. Removal of EUs 027, 028, 035, and 041c. Addition of EUs 045, 046a, and 046b to the scope of the project.
V-22-011 R2	Sig Rev	APE20250002; APE20240005	6/27/2025		As-Built Revision to the initial project. Addition of EU 047 and EU 048 to Group 4, EU 049 and EU 050 to Group 5, and EU 051 to insignificant activities. Removal of EU 039 and EU 040.

SECTION A - PERMIT AUTHORIZATION

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

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

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

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

Emission Group 1 – Direct-Fired Furnaces

Emission Unit 002 (EU 002) Heat Treat Furnace

Description:

Construction Commenced: 2019
 Maximum Continuous Rating: 34.1 MMBtu/hr
 Maximum Process Rating: 125,000 tons/yr
 Primary Fuel: Natural Gas
 Control Equipment: None

Emission Unit 003 (EU 003) Reheater Furnace

Description:

Construction Commenced: 2019
 Maximum Continuous Rating: 7.68 MMBtu/hr
 Maximum Process Rating: 125,000 tons/yr
 Primary Fuel: Natural Gas
 Control Equipment: None

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:

None

2. Emission Limitations:

- a. The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than 20 percent opacity. [401 KAR 59:010, Section 3(1)(a)]
- b. 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 of ≤ 0.50 ton/hr: 2.34 lb/hr
 - ii. For process weight rates of ≤ 30 tons/hr: $E = 3.59P^{0.62}$

Where:

E = the rate of emission in lb/hr; and

P = the process weight rate in tons/hour

Compliance Demonstration Method:

The source is assumed to be in compliance with the 401 KAR 59:010 opacity standard and the mass emission standard while burning natural gas based on the rates of emissions provided in the application submitted by the source.

- c. 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

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

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:

The Cabinet determines that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and supplemental information submitted by the source.

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

a. For each emission unit, the permittee shall monitor the monthly natural gas usage in MMscf. [401 KAR 52:020, Section 10]

b. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

a. For each emission unit, the permittee shall maintain records of the monthly natural gas usage in MMscf. [401 KAR 52:020, Section 10]

b. 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)**Emission Group 2 – Metal Process Furnaces****Emission Unit 005 (EU 005) Batch Annealing Furnace 1****Description:**

Construction Commenced: 2019
Maximum Continuous Rating: 17.47 MMBtu/hr
Maximum Process Rating: 50,000 tons/yr
Primary Fuel: Natural Gas
Control Equipment: None

Emission Unit 006 (EU 006) Batch Annealing Furnace 2**Description:**

Construction Commenced: 2019
Maximum Continuous Rating: 17.47 MMBtu/hr
Maximum Process Rating: 50,000 tons/yr
Primary Fuel: Natural Gas
Control Equipment: None

APPLICABLE REGULATIONS:

401 KAR 59:010, *New process operations*

401 KAR 63:002, Section 2(4)(iii), 40 C.F.R. 63.7480 through 63.7575, Tables 1 through 13 (Subpart DDDDD), *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*

1. Operating Limitations:

- a. At all times, the permittee shall operate and maintain any affected source (as defined in 40 CFR 63.7490), 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 that 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 63.7500(a)(3)]
- b. The permittee must demonstrate initial compliance with the applicable work practice standards in Table 3 to 40 CFR 63, Subpart DDDDD within the annual schedule as specified in 40 CFR 63.7515(d) following the initial compliance date specified in 40 CFR 63.7495(a). Thereafter, the permittee is required to complete the annual tune-up as specified in 40 CFR 63.7515(d). [40 CFR 63.7510(g)]
- c. The permittee must conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10). Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13 months after the previous tune-up. The first annual tune-up must be no later than 13 months after the initial startup of the new affected source. [40 CFR 63.7515(d)]
- d. The permittee must complete a subsequent tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi) and the schedule described in 40 CFR

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

63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up. [40 CFR 63.7515(g)]

- e. The permittee must conduct an annual tune-up of each process heater to demonstrate continuous compliance as specified in 40 CFR 63.7540(a)(10)(i) through (vi): [40 CFR 63.7540(a)(10)]
 - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment; [40 CFR 63.7540(a)(10)(i)]
 - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; [40 CFR 63.7540(a)(10)(ii)]
 - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown); [40 CFR 63.7540(a)(10)(iii)]
 - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject; [40 CFR 63.7540(a)(10)(iv)]
 - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and [40 CFR 63.7540(a)(10)(v)]
 - vi. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in 40 CFR 63.7540(a)(10)(vi)(A) through (C), [40 CFR 63.7540(a)(10)(vi)]
 - 1) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; [40 CFR 63.7540(a)(10)(vi)(A)]
 - 2) A description of any corrective actions taken as a part of the tune-up; and [40 CFR 63.7540(a)(10)(vi)(B)]
- f. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13)]

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 20 percent opacity. [401 KAR 59:010, Section 3(1)(a)]

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

- b. 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 of ≤ 0.50 ton/hr: 2.34 lb/hr
- ii. For process weight rates of ≤ 30 tons/hr: $E = 3.59P^{0.62}$
- Where:
E = the rate of emission in lb/hr; and
P = the process weight rate in tons/hour

Compliance Demonstration Method:

The source is assumed to be in compliance with the 401 KAR 59:010 opacity standard and the mass emission standard while burning natural gas based on the rates of emissions provided in the application submitted by the source.

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

- a. For each emission unit, the permittee shall monitor the monthly natural gas usage in MMscf. [401 KAR 52:020, Section 10]
- b. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee must keep records according to 40 CFR 63.7555(a)(1) and (2). [40 CFR 63.7555(a)]
- i. A copy of each notification and report that the permittee submitted to comply with 40 CFR 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]
- ii. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). [40 CFR 63.7555(a)(2)]
- b. The records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). [40 CFR 63.7560(a)]
- c. 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 63.7560(b)]
- d. The permittee must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence,

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

measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3 years. [40 CFR 63.7560(c)]

- e. For each emission unit, the permittee shall maintain records of the monthly natural gas usage in MMscf. [401 KAR 52:020, Section 10]
- f. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

- a. The permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.7545(e). [40 CFR 63.7530(f)]
- b. The permittee must report each instance in which the permittee did not meet each emission limit and operating limit in 40 CFR 63, Subpart DDDDD, Tables 1 through 4 or 11 through 13 that apply. These instances are deviations from the emission limits or operating limits, respectively, in 40 CFR 63, Subpart DDDDD. These deviations must be reported according to the requirements in 40 CFR 63.7550. [40 CFR 63.7540(b)]
- c. The permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified. [40 CFR 63.7545(a)]
- d. As specified in 40 CFR 63.9(b)(4) and (5), the permittee must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. For a new or reconstructed affected source that has reclassified to major source status, the permittee must submit an Initial Notification not later 120 days after the source becomes subject to 40 CFR 63, Subpart DDDDD. [40 CFR 63.7545(c)]
- e. The permittee must submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, the permittee must submit the Notification of Compliance Status before the close of business on the 60th day following the completion of all initial compliance demonstrations for all boiler or process heaters at the facility according to 40 CFR 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in 40 CFR 63.7545(e)(1) through (8), as applicable. [40 CFR 63.7545(e)]
 - i. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with 40 CFR 63, Subpart DDDDD, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by the permittee or the EPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3, and justification for the selection of fuel(s) burned during the compliance demonstration. [40 CFR 63.7545(e)(1)]

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

- ii. A signed certification that the permittee has met all applicable emission limits and work practice standards. [40 CFR 63.7545(e)(6)]
 - iii. If there was a deviation from any emission limit, work practice standard, or operating limit, the permittee shall also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report. [40 CFR 63.7545(e)(7)]
 - iv. In addition to the information required in 40 CFR 63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official: [40 CFR 63.7545(e)(8)]
 - 1) “This facility complies with the required initial tune-up according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi).” [40 CFR 63.7545(e)(8)(i)]
- f. The permittee must submit each report in Table 9 to 40 CFR 63, Subpart DDDDD that applies. [40 CFR 63.7550(a)]
- g. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to 40 CFR 63.7550(h), by the date in Table 9 to 40 CFR 63, Subpart DDDDD and according to the requirements in 40 CFR 63.7550(b)(1) through (4). For units that are subject only to a requirement to conduct subsequent annual tune-ups according to 40 CFR 63.7540(a)(10), and not subject to emission limits or Table 4 operating limits, the permittee may submit only an annual compliance report, as applicable, as specified in 40 CFR 63.7550(b)(1) through (4), instead of a semi-annual compliance report. [40 CFR 63.7550(b)]
- i. The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for the source in 40 CFR 63.7495. If submitting an annual compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495 and ending on December 31 within 1 year after the compliance date that is specified for the source in 40 CFR 63.7495. [40 CFR 63.7550(b)(1)]
 - ii. The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495. The first annual compliance report must be postmarked or submitted no later than January 31. [40 CFR 63.7550(b)(2)]
 - iii. Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual compliance reports must cover the 1-year period from January 1 to December 31. [40 CFR 63.7550(b)(3)]
 - iv. Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual compliance reports must be postmarked or submitted no later than January 31. [40 CFR 63.7550(b)(4)]

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

- v. The permittee may submit the first and subsequent compliance reports according to the dates the Division has established in this permit for semiannual reports instead of according to the dates in 40 CFR 63.7550(b)(1) through (4). [40 CFR 63.7550(b)(5)]
- h. A compliance report shall contain the following information: [40 CFR 63.7550(c)]
 - i. The permittee must submit a compliance report with the information in 40 CFR 63.7550(c)(5)(i) through (iii), (xiv) and (xvii). [40 CFR 63.7550(c)(1)]
 - ii. Company and Facility name and address. [40 CFR 63.7550(c)(5)(i)]
 - iii. Process unit information, emissions limitations, and operating parameter limitations. [40 CFR 63.7550(c)(5)(ii)]
 - iv. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.7550(c)(5)(iii)]
 - v. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10). Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown. [40 CFR 63.7550(c)(5)(xiv)]
 - vi. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [40 CFR 63.7550(c)(5)(xvii)]
- i. The permittee must submit the reports according to the procedures specified in 40 CFR 63.7550(h)(1) through (3). [40 CFR 63.7550(h)]
 - i. The permittee must submit all reports required by Table 9 of 40 CFR 63, Subpart DDDDD electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to 40 CFR 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR 63.7550(h)(3)]
- j. Refer to **Section F** for general reporting requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Emission Group 3 - Boilers****Emission Unit 007 (EU 007)****Boiler #1****Description:**

Construction Commenced: October 2019
Maximum Continuous Rating: 25.2 MMBtu/hr
Primary Fuel: Natural Gas
Control Equipment: None

Emission Unit 008 (EU 008)**Boiler #2****Description:**

Construction Commenced: October 2019
Maximum Continuous Rating: 25.2 MMBtu/hr
Primary Fuel: Natural Gas
Control Equipment: None

Emission Unit 009 (EU 009)**Boiler #3****Description:**

Construction Commenced: October 2019
Maximum Continuous Rating: 25.2 MMBtu/hr
Primary Fuel: Natural Gas
Control Equipment: None

APPLICABLE REGULATIONS:

401 KAR 59:015, *New indirect heat exchangers*

401 KAR 60:005, Section 2(2)(d), 40 C.F.R. 60.40c through 60.48c (Subpart Dc), *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*

401 KAR 63:002, Section 2(4)(iii), 40 C.F.R. 63.7480 through 63.7575, Tables 1 through 13 (Subpart DDDDD), *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*

1. Operating Limitations:

- a. At all times, the permittee shall operate and maintain any affected source (as defined in 40 CFR 63.7490), 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 that 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 63.7500(a)(3)]
- b. The permittee must demonstrate initial compliance with the applicable work practice standards in Table 3 to 40 CFR 63, Subpart DDDDD within the annual schedule as specified in 40 CFR 63.7515(d) following the initial compliance date specified in 40 CFR 63.7495(a). Thereafter, the permittee is required to complete the annual tune-up as specified in 40 CFR 63.7515(d). [40 CFR 63.7510(g)]

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

- c. The permittee must conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10). Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13 months after the previous tune-up. The first annual tune-up must be no later than 13 months after the initial startup of the new affected source. [40 CFR 63.7515(d)]
- d. The permittee must complete a subsequent tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi) and the schedule described in 40 CFR 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up. [40 CFR 63.7515(g)]
- e. The permittee must conduct an annual tune-up of each process heater to demonstrate continuous compliance as specified in 40 CFR 63.7540(a)(10)(i) through (vi): [40 CFR 63.7540(a)(10)]
 - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment; [40 CFR 63.7540(a)(10)(i)]
 - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; [40 CFR 63.7540(a)(10)(ii)]
 - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown); [40 CFR 63.7540(a)(10)(iii)]
 - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject; [40 CFR 63.7540(a)(10)(iv)]
 - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and [40 CFR 63.7540(a)(10)(v)]
 - vi. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in 40 CFR 63.7540(a)(10)(vi)(A) through (C), [40 CFR 63.7540(a)(10)(vi)]
 - 1) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; [40 CFR 63.7540(a)(10)(vi)(A)]
 - 2) A description of any corrective actions taken as a part of the tune-up; and [40 CFR 63.7540(a)(10)(vi)(B)]
- f. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13)]

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

- a. Each affected facility shall not cause emissions of particulate matter in excess of 0.35 lb/MMBtu from each indirect heat exchanger. [401 KAR 59:015, Section 4(1)(c)]
- b. Each affected facility shall not cause emissions of particulate matter in excess of twenty (20) percent opacity from each indirect heat exchanger. [401 KAR 59:015, Section 4(2)]
- c. Each affected facility shall not cause emissions of gases that contain sulfur dioxide (SO₂) in excess of 1.31 lb/MMBtu from each indirect heat exchanger. [401 KAR 59:015, Section 5(1)(c)(2)]

Compliance Demonstration Method:

The source is assumed to be in compliance with the 401 KAR 59:015 PM emission standard, opacity standard, and SO₂ emission standard while burning natural gas based on the rates of emissions provided in the application submitted by the source.

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

- a. For each emission unit, the permittee shall monitor the monthly natural gas usage in MMscf. [401 KAR 52:020, Section 10]
- b. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall record and maintain records of the amount of each fuel combusted during each calendar month for each affected facility. [40 CFR 60.48c(g)(2)]
- b. The permittee must keep records according to 40 CFR 63.7555(a)(1) and (2). [40 CFR 63.7555(a)]
 - i. A copy of each notification and report that the permittee submitted to comply with 40 CFR 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]
 - ii. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). [40 CFR 63.7555(a)(2)]
- c. The records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). [40 CFR 63.7560(a)]

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

- d. As specified in 40 CFR 63.10(b)(1), the permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.7560(b)]
- e. The permittee shall keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3 years. [40 CFR 63.7560(c)]
- f. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

- a. The permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.7545(e). [40 CFR 63.7530(f)]
- b. The permittee must report each instance in which the permittee did not meet each emission limit and operating limit in 40 CFR 63, Subpart DDDDD, Tables 1 through 4 or 11 through 13 that apply. These instances are deviations from the emission limits or operating limits, respectively, in 40 CFR 63, Subpart DDDDD. These deviations must be reported according to the requirements in 40 CFR 63.7550. [40 CFR 63.7540(b)]
- c. The permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified. [40 CFR 63.7545(a)]
- d. As specified in 40 CFR 63.9(b)(4) and (5), the permittee must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. For a new or reconstructed affected source that has reclassified to major source status, the permittee must submit an Initial Notification not later 120 days after the source becomes subject to 40 CFR 63, Subpart DDDDD. [40 CFR 63.7545(c)]
- e. The permittee must submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, the permittee shall submit the Notification of Compliance Status before the close of business on the 60th day following the completion of all initial compliance demonstrations for all boiler or process heaters at the facility according to 40 CFR 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in 40 CFR 63.7545(e)(1) through (8), below, as applicable. [40 CFR 63.7545(e)]
 - i. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with 40 CFR 63, Subpart DDDDD, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by the permittee or the EPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel(s) were a secondary material processed from discarded non-hazardous

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

- secondary materials within the meaning of 40 CFR 241.3, and justification for the selection of fuel(s) burned during the compliance demonstration. [40 CFR 63.7545(e)(1)]
- ii. A signed certification that the permittee has met all applicable emission limits and work practice standards. [40 CFR 63.7545(e)(6)]
 - iii. If there was a deviation from any emission limit, work practice standard, or operating limit, the permittee shall also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report. [40 CFR 63.7545(e)(7)]
 - iv. In addition to the information required in 40 CFR 63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official: [40 CFR 63.7545(e)(8)]
 - 1) "This facility complies with the required initial tune-up according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)." [40 CFR 63.7545(e)(8)(i)]
- f. The permittee must submit each report in Table 9 to 40 CFR 63, Subpart DDDDD that applies. [40 CFR 63.7550(a)]
- g. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to 40 CFR 63.7550(h), by the date in Table 9 to 40 CFR 63, Subpart DDDDD and according to the requirements in 40 CFR 63.7550(b)(1) through (4). For units that are subject only to a requirement to conduct subsequent annual tune-ups according to 40 CFR 63.7540(a)(10), and not subject to emission limits or Table 4 operating limits, the permittee may submit only an annual compliance report, as applicable, as specified in 40 CFR 63.7550(b)(1) through (4), instead of a semi-annual compliance report. [40 CFR 63.7550(b)]
- i. The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for the source in 40 CFR 63.7495. If submitting an annual compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495 and ending on December 31 within 1 year after the compliance date that is specified for the source in 40 CFR 63.7495. [40 CFR 63.7550(b)(1)]
 - ii. The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495. The first annual compliance report must be postmarked or submitted no later than January 31. [40 CFR 63.7550(b)(2)]
 - iii. Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual compliance reports must cover the 1-year period from January 1 to December 31. [40 CFR 63.7550(b)(3)]
 - iv. Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of

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

- the semiannual reporting period. Annual compliance reports must be postmarked or submitted no later than January 31. [40 CFR 63.7550(b)(4)]
- v. The permittee may submit the first and subsequent compliance reports according to the dates the Division has established in this permit for semiannual reports instead of according to the dates in 40 CFR 63.7550(b)(1) through (4). [40 CFR 63.7550(b)(5)]
 - h. A compliance report shall contain the following information: [40 CFR 63.7550(c)]
 - i. The permittee must submit a compliance report with the information in 40 CFR 63.7550(c)(5)(i) through (iii), (xiv) and (xvii). [40 CFR 63.7550(c)(1)]
 - ii. Company and Facility name and address. [40 CFR 63.7550(c)(5)(i)]
 - iii. Process unit information, emissions limitations, and operating parameter limitations. [40 CFR 63.7550(c)(5)(ii)]
 - iv. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.7550(c)(5)(iii)]
 - v. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10). Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown. [40 CFR 63.7550(c)(5)(xiv)]
 - vi. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [40 CFR 63.7550(c)(5)(xvii)]
 - i. The permittee must submit the reports according to the procedures specified in 40 CFR 63.7550(h)(1) through (3). [40 CFR 63.7550(h)]
 - i. The permittee must submit all reports required by Table 9 of 40 CFR 63, Subpart DDDDD electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to 40 CFR 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR 63.7550(h)(3)]
 - j. Refer to **Section F** for general reporting requirements.

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

Emission Group 4 – Emergency Generators

Emission Unit 011 (EU 011) **Emergency Generator #1 - (Security Office)**
Emission Unit 021 (EU 021) **Emergency Generator #2 – (Administrative Building)**
Emission Unit 047 (EU 047) **Cast Pit Sump Emergency Generator**
Emission Unit 048 (EU 048) **Decoater Backup Emergency Generator**

Description: Four natural gas-fired spark-ignition emergency engines intended to provide auxiliary power to associated operations in the event of sudden power failure. These generators are 4-stroke lean burn engines with total displacement less than 30 liters.

Emission Unit	Unit Name	Maximum Continuous Rating (bhp)	Control Device	Construction Commenced
011	Emergency Generator #1 – (Security Office)	304	None	October 2019
021	Emergency Generator #2 – (Administrative Building)	304	None	October 2019
047	Cast Pit Sump Emergency Generator	132	None	October 2024
048	Decoater Backup Emergency Generator	38	None	October 2024

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality*, for EU 047 and EU 048
401 KAR 60:005, Section 2(2)(eeee), **40 C.F.R. 60.4230 through 60.4248, Tables 1 through 4 (Subpart JJJJ)**, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*
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 shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart JJJJ. No further requirements apply for such engines under 40 CFR Part 63. [40 CFR 63.6590(c)(6)]
- b. The permittee shall operate and maintain the stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine. [40 CFR 60.4234]
- c. The permittee shall install a non-resettable hour meter upon startup of the emergency engine. [40 CFR 60.4237(b) and 40 CFR 60.4237(c)]

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

- d. The permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR 60.4243(d)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart JJJJ, 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 60.4243(d)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 60.4243(d)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60, Subpart JJJJ and must meet all requirements for non-emergency engines. [40 CFR 60.4243(d)]
 - i. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4243(d)(1)]
 - ii. The permittee may operate the emergency stationary ICE for the purpose specified in 40 CFR 60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4243(d)(2). [40 CFR 60.4243(d)(2)]
 - 1) Emergency stationary ICE 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 ICE beyond 100 hours per calendar year. [40 CFR 60.4243(d)(2)(i)]
 - iii. Emergency stationary ICE 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 60.4243(d)(2). Except as provided in 40 CFR 60.4243(d)(3)(i), 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 an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4243(d)(3)]
 - 1) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all conditions in 40 CFR 60.4243(d)(3)(i)(A) through (E) are met. [40 CFR 60.4243(d)(3)(i)]
- e. If the permittee does not operate and maintain the certified stationary SI internal combustion engine according to the manufacturer's written emission-related instructions, the permittee is required to perform initial performance testing as indicated in 40 CFR 60.4243, but the permittee is not required to conduct subsequent performance testing unless the stationary engine undergoes rebuild, major repair or maintenance. Engine rebuilding means to overhaul an engine or to otherwise perform extensive service on the engine (or on a portion of the engine or engine system). Perform extensive service means to disassemble the engine (or portion of the engine or engine system), inspect and/or replace many of the parts, and reassemble the engine (or portion of the engine or engine system) in such a manner that significantly increases the service life of the resultant engine. [40 CFR 60.4243(f)]

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

Compliance Demonstration Method:

To ensure compliance with the requirements above, the permittee shall keep records of the hours of operation and purpose of operation. There is no time limit on the use of stationary emergency RICE in emergency situations. Refer to **5. Specific Recordkeeping Requirements**.

- f. The permittee shall prepare and maintain for EU 047 and EU 048, no later than 30 days after final issuance of permit V-22-011 R2, a good combustion and operation practices (GCOP) plan that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing PM, PM₁₀, PM_{2.5}, NO_x, CO, VOC, and GHG emissions. Any revisions to the GCOP plan requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]
- i. A list of combustion optimization practices and a means of verifying the practices have occurred.
 - ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred.
 - iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.

Compliance Demonstration Method:

To ensure compliance with requirements above, the permittee shall keep maintenance records and maintain records of the manufacturer's emission-related written instructions. Refer to **5. Specific Recordkeeping Requirements** and **6. Specific Reporting Requirements**.

2. Emission Limitations:

- a. The permittee must comply with the emission standards in 40 CFR 60, Subpart JJJJ, Table 1 for the stationary SI ICE: [40 CFR 60.4233(e); 401 KAR 51:017 for EU 047 and EU 048]

Emission Unit	Maximum Engine Power	Emission Standards g/HP-hr (ppmvd at 15% O ₂) ¹		
		NO _x	CO	VOC ²
011; 021; 047	HP≥130	2.0 (160)	4.0 (540)	1.0 (86)
		NO _x + HC	CO	VOC
048	25<HP<130	10 (N/A)	387 (N/A)	N/A

¹Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

²For purposes of 40 CFR 60, Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

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

The permittee shall demonstrate compliance according to one of the methods specified in 40 CFR 60.4243(b)(1) and (2). [40 CFR 60.4243(b)]

- A. Purchasing an engine certified according to procedures specified in 40 CFR 60, Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4243(a). [40 CFR 60.4243(b)(1)]
- B. If the permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance. [40 CFR 60.4243(a)(1)]

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

- a. For each emission unit, the monthly hours of operation recorded through the non-resettable hour meter and the purpose of operation for each emission point shall be monitored. [401 KAR 52:020, Section 10]
- b. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall keep records of the information in 40 CFR 63.4245(a)(1) through (4). [40 CFR 60.4245(a)]
 - i. All notifications submitted to comply with 40 CFR 60, Subpart JJJJ and all documentation supporting any notification. [40 CFR 60.4245(a)(1)]
 - ii. Maintenance conducted on the engine. [40 CFR 60.4245(a)(2)]
 - iii. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 1048, 1054, and 1060, as applicable. [40 CFR 60.4245(a)(3)]
 - iv. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards. [40 CFR 60.4245(a)(4)]
- b. For all stationary SI emergency ICE that do not meet the standards applicable to non-emergency engines, the permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 60.4245(b)]

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

- c. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
 - i. The hours of operation for each engine, including the purpose of operation;
 - ii. For EU 047 and EU 048, the monthly and annual fuel usage for each engine, in MMscf;
 - iii. For EU 047 and EU 048, the manufacturer's certified emissions certificate, manufacturer's written operating instructions, and any procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine; and
 - iv. The GCOP plan as well as any revisions for EU 047 and EU 048.
- d. The permittee shall maintain records of any time that EU 047 or EU 048 were not operated according to the GCOP plan with a description of the situation and actions taken to remedy the issue. [401 KAR 51:017]
- e. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

- a. For EU 011, EU 021, and EU 047, if the engine operates for the purpose specified in 40 CFR 60.4243(d)(3)(i), the permittee must submit an annual report according to the requirements in 40 CFR 60.4245(e)(1) through (3). [40 CFR 60.4245(e)]
- b. The permittee shall include, in the semi-annual report, any time that EU 047 or EU 048 was not operated according to the GCOP plan with a description of the situation and actions taken to remedy the issue. Refer to **5. Specific Recordkeeping Requirements (d)**. [401 KAR 51:017]
- a. Refer to **Section F** for general reporting requirements.

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

Emission Group 5 – Emergency Fire Pumps

Emission Unit 012 (EU 012)	Emergency Fire Pump #1
Emission Unit 022 (EU 022)	Emergency Fire Pump #2
Emission Unit 049 (EU 049)	Emergency Fire Pump #3
Emission Unit 050 (EU 050)	Emergency Fire Pump #4

Description: Four emergency fire pumps equipped with diesel-fired engines intended to provide water in the case of a fire. These engines have total displacement less than 10 liters.

Emission Unit	Unit Name	Maximum Continuous Rating (bhp)	Control Device	Construction Commenced
012	Emergency Fire Pump #1	175	None	October 2019
022	Emergency Fire Pump #2	175	None	October 2019
049	Emergency Fire Pump #3	327	None	October 2024
050	Emergency Fire Pump #4	327	None	October 2024

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality*, for EU 049 and EU 050.

401 KAR 60:005, Section 2(2)(dddd), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 8 (Subpart III), *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

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 shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart III. No further requirements apply for such engines under 40 CFR Part 63. [40 CFR 63.6590(c)(6); 40 CFR 63.6590(c)(7)]
- b. The permittee shall operate and maintain each emergency fire pump such that it achieves the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. [40 CFR 60.4206]
- c. The permittee shall use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel. [40 CFR 60.4207(b)]
- d. The permittee shall install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]
- e. The permittee shall do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]
 - i. Operate and maintain the stationary CI internal combustion engine according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]

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

- ii. Change only those emission-related settings that are permitted by the manufacturer; and [40 CFR 60.4211(a)(2)]
 - iii. Meet the requirements of 40 CFR part 1068, as they apply. [40 CFR 60.4211(a)(3)]
- f. The permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR 60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart III, 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 60.4211(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60, Subpart III and shall meet all requirements for non-emergency engines. [40 CFR 60.4211(f)]
- i. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4211(f)(1)]
 - ii. The permittee may operate the emergency stationary ICE for any combination of the purposes specified in 40 CFR 60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4211(f)(2). [40 CFR 60.4211(f)(2)]
 - 1) Emergency stationary ICE 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 ICE beyond 100 hours per calendar year. [40 CFR 60.4211(f)(2)(i)]
 - iii. Emergency stationary ICE 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 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4211(f)(3)]
 - 1) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all the conditions in 40 CFR 62.4211(f)(3)(i)(A) through (E) are met. [40 CFR 60.4211(f)(3)(i)]
- g. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance by keeping a maintenance plan and records of conducted maintenance and the permittee shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control

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

practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [40 CFR 60.4211(g)(2)]

Compliance Demonstration Method:

To ensure compliance with the requirements above, the permittee shall keep records of the hours of operation and purpose of operation. There is no time limit on the use of stationary emergency RICE in emergency situations. Refer to **5. Specific Recordkeeping Requirements**.

- h. The permittee shall prepare and maintain for EU 049 and EU 050, no later than 30 days after final issuance of permit V-22-011 R2, a good combustion and operation practices (GCOP) plan that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing PM, PM₁₀, PM_{2.5}, NO_x, CO, VOC, and GHG emissions. Any revisions to the GCOP plan requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division’s inspection. The plan shall include, but not be limited to: [401 KAR 51:017]
 - i. A list of combustion optimization practices and a means of verifying the practices have occurred.
 - ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred.
 - iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.

Compliance Demonstration Method:

To ensure compliance with requirements above, the permittee shall keep maintenance records and maintain records of the manufacturer’s emission-related written instructions. Refer to **5. Specific Recordkeeping Requirements** and **6. Specific Reporting Requirements**.

2. Emission Limitations:

- a. The permittee shall comply with the emission standards in Table 4 to 40 CFR 60 Subpart IIII, for all pollutants: [40 CFR 60.4205(c); 401 KAR 51:017 for EU 049 & EU 050]

Emission Unit	Maximum Engine Power	Emission Standards g/HP-hr		
		NMHC+NO _x	CO	PM
012; 022	175≤HP<300	3.0	2.6	0.15
049; 050	300≤HP<600	3.0	2.6	0.15

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

The permittee shall comply with the emission standards specified in 40 CFR 60.4205(c) by purchasing an engine certified to the emission standards in 40 CFR 60.4205(c) for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [40 CFR 60.4211(c)]

3. Testing Requirements

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

4. Specific Monitoring Requirements:

- a. For each emission unit, the monthly hours of operation recorded through the non-resettable hour meter and the purpose of operation for each emission point shall be monitored. [401 KAR 52:020, Section 10]
- b. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]
- b. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
 - i. The hours of operation for each engine, including the purpose of operation;
 - ii. For EU 049 and EU 050, the monthly and annual fuel usage for each engine, in Mgal;
 - iii. For EU 049 and EU 050, the manufacturer's certified emissions certificate, manufacturer's written operating instructions, and any procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine; and
 - iv. The GCOP plan as well as any revisions for EU 049 and EU 050.
- c. The permittee shall maintain records of maintenance conducted on the engine consistent with the operating requirements of 40 CFR 60.4206 and 40 CFR 60.4211(a). [401 KAR 52:020, Section 10]
- d. The permittee shall maintain records of fuel purchases to show that the fuel meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. [401 KAR 52:020, Section 10]
- e. The permittee shall maintain records of any time that EU 049 or EU 050 were not operated according to the GCOP plan with a description of the situation and actions taken to remedy the issue. [401 KAR 51:017]
- f. Refer to **Section F** for general recordkeeping requirements.

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

6. Specific Reporting Requirements:

- a. If the permittee operates for the purposes specified in 40 CFR 60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). [40 CFR 60.4214(d)]
- b. The permittee shall include, in the semi-annual report, any time that EU 049 or EU 050 was not operated according to the GCOP plan with a description of the situation and actions taken to remedy the issue. Refer to **5. Specific Recordkeeping Requirements (e)**. [401 KAR 51:017]
- c. Refer to **Section F** for general reporting requirements.

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

Emission Unit 014 (EU 014)

PTL – Shear and Tension Leveler

Description:

Construction Commenced: 2019

Maximum Continuous Rating: 2.078 gallons lubricant per hour (18,206 gallons per year)

Control Equipment: None

APPLICABLE REGULATIONS:

401 KAR 63:010, *Fugitive emissions.*

1. Operating Limitations:

None.

2. Emission Limitations:

None.

3. Testing Requirements:

Pursuant to 401 KAR 50:045, Section 1, performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the monthly lubricant usage, in gallons. [401 KAR 52:020, Section 10]
- b. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the monthly amount of lubricant usage, in gallons. [401 KAR 52:020, Section 10]
- b. 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)

Emission Unit 020 (EU 020) Paved Roads

Description: Paved haul roads.

Emission Unit	Unit Name	Maximum Capacity (VMT/day)	Control Device	Construction Commenced
020	Haul Roads	655.7	Sweeping	2019; 2022

APPLICABLE REGULATIONS:

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

401 KAR 63:010, *Fugitive emissions*

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. A person shall not cause, suffer, or allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway. [401 KAR 63:010, Section 4(3)]
- e. The permittee shall implement a plant-wide speed limit, established such that roadway emissions from truck traffic are minimized. The permittee shall provide training and post signage to ensure the speed limit is observed. [401 KAR 51:017]

Compliance Demonstration Method:

The permittee shall demonstrate compliance with **1. Operating Limitations** (a) through (e) by meeting the requirements in **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

2. Emission Limitations:

A person shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. Part 60, for: [401 KAR 63:010, Section 3(2)]

- a. More than five (5) minutes of emission time during any sixty (60) minute observation period; or
- b. More than twenty (20) minutes of emission time during any twenty-four (24) hour period.

Compliance Demonstration Method:

The permittee shall demonstrate compliance by meeting the requirements in **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]
- b. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]
- c. Refer to **Section F** for general monitoring requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**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 Reference Method 22 performed and field records identified in Reference Method 22.
 - iii. Any corrective action taken and the results.
- c. The permittee shall keep records of the dates that they swept according to **7. Specific Control Equipment Operating Conditions.** [401 KAR 52:020, Section 10]
- d. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

The permittee shall employ a combination of the following to control fugitive dust emissions: surface improvements (pavement) and sweeping (good work practice) as needed, but at least monthly. [401 KAR 51:017]

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

Emission Unit 026 (EU 026)

Scrap Processing Line #1

Description: Shredding line handling large open market, post-industrial automotive, and runaround scrap including debaling, pre-shredding, hammermill shredder, magnet separator, air knife, and eddy current separator. Capable of feeding into the Decoater and a scrap storage bunker. This emission unit is a new aluminum scrap shredder under 40 CFR 63, Subpart RRR.

Emission Unit	Unit Name	Maximum Capacity (ton/hr)	Control Device	Construction Commenced
026	Scrap Processing Line #1	27.6	Cold Baghouse #1	2022

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration*

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. The permittee must: [40 CFR 63.1506(c)]
 - i. Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, see 40 CFR 63.14); [40 CFR 63.1506(c)(1)]
 - ii. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and [40 CFR 63.1506(c)(2)]
 - iii. Operate each capture/collection system according to the procedures and requirements in the OM&M plan. [40 CFR 63.1506(c)(3)]
- c. The permittee must operate a bag leak detection system, or a continuous opacity monitor, or conduct visible emissions observations. [40 CFR 63.1506(e)]
 - i. If a bag leak detection system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must: [40 CFR 63.1506(e)(1)]
 - 1) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(e)(1)(i)]

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

- 2) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the permittee to initiate corrective action. [40 CFR 63.1506(e)(1)(ii)]
 - ii. If a continuous opacity monitoring system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(e)(2)]
 - iii. If visible emission observations are used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must initiate corrective action within 1-hour of any observation of visible emissions during a daily visible emissions test and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(e)(3)]
- d. 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. The permittee shall prepare and implement for each new affected source, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (b)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]
 - i. Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device. [40 CFR 63.1510(b)(1)]
 - ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]

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

- iii. Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in 40 CFR 63.1505. [40 CFR 63.1510(b)(3)]
- iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
 - 1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
 - 2) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in 40 CFR 63, Subpart A. [40 CFR 63.1510(b)(4)(ii)]
- v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]
- vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
 - 1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]
 - 2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]
- vii. A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. [40 CFR 63.1510(b)(7)]
- f. The permittee shall limit the operation of each emission unit as necessary to comply with the emission standards in **2. Emission Limitations**. [401 KAR 51:017]
- g. The permittee shall maintain the overall capture efficiency of the Scrap Processing Building at or above 98% capture efficiency for PM, PM₁₀, and PM_{2.5}. [401 KAR 51:017]
- h. The permittee shall prepare and implement, upon initial compliance demonstration but no later than 180 days after startup, a Good Work Practices (GWP) plan that includes written operating instructions and procedures that specify good operating and maintenance practices and includes, at a minimum, the following specific practices targeting PM, PM₁₀, and PM_{2.5} emission minimization, and a means of verifying the practices have occurred: [401 KAR 51:017]
 - i. Inspecting ductwork on an annual basis to eliminate any air or dust leakage; and
 - ii. Employing a preventative maintenance program, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

Compliance Demonstration Method:

For **1. Operating Limitations** (a) through (h), the permittee shall demonstrate compliance by meeting the requirements in **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

2. Emission Limitations:

- a. The permittee must not discharge or cause to be discharged to the atmosphere from each shredder: [40 CFR 63.1505(b)]
 - i. Emissions in excess of 0.023 grams (g) of PM per dry standard cubic meter (dscm) (0.010 grain (gr) of PM per dry standard cubic foot (dscf)); and [40 CFR 63.1505(b)(1)]
 - ii. Visible emissions (VE) in excess of 10 percent opacity from any PM add-on air pollution control device if a continuous opacity monitor or visible emissions monitoring is chosen as the monitoring option. [40 CFR 63.1505(b)(2)]

- b. Emissions of PM, PM₁₀, and PM_{2.5} shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Unit	Description	BACT for PM (filterable)	BACT for PM₁₀	BACT for PM_{2.5}
026	Scrap Processing Line #1	5.47 lb/hr; 23.98 ton/yr	2.79 lb/hr; 12.23 ton/yr	0.82 lb/hr; 3.60 ton/yr

Note: lb/hr limits are based on a 3-hour average and ton/yr limits are based on a 12-month rolling total.

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

- d. For emissions from a control device or stack the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2)]
 - i. For process weight rates of ≤ 0.50 ton/hr: 2.34 lbs/hr
 - ii. For process weight rates of ≤ 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:

- 1) For **2. Emission Limitations** (a), the permittee shall demonstrate compliance by meeting the requirements in **3. Testing Requirements**, **4. Specific Monitoring Requirements** (c), and **5. Specific Recordkeeping Requirements** (b).
- 2) For **2. Emission Limitations** (b), the permittee shall demonstrate compliance by meeting the requirements in **3. Testing Requirements** (i), **4. Specific Monitoring**

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

Requirements (d), 5. Specific Recordkeeping Requirements (c), and 7. Specific Control Equipment Operating Conditions.

- 3) For **2. Emission Limitations (c)**, compliance is assumed when complying with **2. Emission Limitations (a)(ii)**. However, if neither a COM nor VE monitoring is chosen as the monitoring option, compliance with **2. Emission Limitations (c)** must be demonstrated by meeting the requirements of **4. Specific Monitoring Requirements (e)** and **5. Specific Recordkeeping Requirements (c)(iv)**.
- 4) For **2. Emission Limitations (d)**, the permittee shall demonstrate compliance each month by comparing the allowable rate to the actual rate calculated using the following equation:

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

Where:

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

3. Testing Requirements:

- a. Prior to conducting any performance test required by 40 CFR 63, Subpart RRR, the permittee must prepare a site-specific test plan which satisfies all of the rule requirements, and must obtain approval of the plan pursuant to the procedures set forth in 40 CFR 63.7. Performance tests shall be conducted under such conditions as the Administrator specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1511(a)]
- b. 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 report the results in the notification of compliance status report as described in 40 CFR 63.1515(b). The permittee must conduct the initial performance test within 180 days after startup of the affected source. Except for the date by which the performance test must be conducted, the permittee shall 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

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

- upon pre-approval from the Division. These new parametric settings shall be used to demonstrate compliance for the period being tested. [40 CFR 63.1511(b)(1)]
- ii. Each performance test for a continuous process must consist of 3 separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of 3 hours. [40 CFR 63.1511(b)(2)]
 - iii. Where multiple affected sources or emission units are exhausted through a common stack, pollutant sampling for each run must be conducted over a period of time during which all affected sources or emission units complete at least 1 entire process operating cycle or for 24 hours, whichever is shorter. [40 CFR 63.1511(b)(4)]
 - iv. Initial compliance with an applicable emission limit or standard is demonstrated if the average of three runs conducted during the performance test is less than or equal to the applicable emission limit or standard. [40 CFR 63.1511(b)(5)]
 - v. Apply 40 CFR 63.1511(b)(1) through (5) for each pollutant separately if a different production rate, charge material or, if applicable, reactive fluxing rate would apply and thereby result in a higher expected emissions rate for that pollutant. [40 CFR 63.1511(b)(6)]
 - vi. The permittee shall 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 part 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)]
- d. The permittee may use alternative test methods as provided in 40 CFR 63.1511(d)(1) through (3), below: [40 CFR 63.1511(d)]
- i. The permittee may use test method ASTM D7520-13 as an alternative to U.S. EPA Method 9 subject to conditions described in 40 CFR 63.1510(f)(4). [40 CFR 63.1511(d)(1)]
 - ii. In lieu of conducting the annual flow rate measurements using Methods 1 and 2, the permittee may use Method 204 in 40 CFR 51, Appendix M, to conduct annual verification of a permanent total enclosure for the affected source/emission unit. [40 CFR 63.1511(d)(2)]
 - iii. The permittee may use an alternative test method approved by the Administrator. [40 CFR 63.1511(d)(3)]
- e. The permittee must conduct a performance test every 5 years following the initial performance test. [40 CFR 63.1511(e)]

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

- f. The permittee must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the permittee must use the appropriate procedures in 40 CFR 63.1511 and submit the information required by 40 CFR 63.1515(b)(4) in the notification of compliance status report. The permittee may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the Division: [40 CFR 63.1511(g)]
 - i. The complete emission test report(s) used as the basis of the parameter(s) is submitted. [40 CFR 63.1511(g)(1)]
 - ii. The same test methods and procedures as required by 40 CFR 63, Subpart RRR were used in the test. [40 CFR 63.1511(g)(2)]
 - iii. The permittee certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report. [40 CFR 63.1511(g)(3)]
 - iv. All process and control equipment operating parameters required to be monitored were monitored as required in 40 CFR 63, Subpart RRR and documented in the test report. [40 CFR 63.1511(g)(4)]
 - v. If the permittee wants to conduct a new performance test and establish different operating parameter values, the permittee 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, the requirements in 40 CFR 63.1511(g)(1) through (4) must be met. [40 CFR 63.1511(g)(5)]
- g. The permittee must conduct performance tests to measure PM emissions at the outlet of the control system. If visible emission observation is the selected monitoring option, the permittee must record visible emission observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test according to the requirements of Method 9 in 40 CFR 60, Appendix A. If emissions observations by ASTM Method D7520-13 (incorporated by reference, see 40 CFR 63.14) is the selected monitoring option, the permittee shall record opacity observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(a)]
- h. The permittee, for each emission unit using a continuous opacity monitoring system, must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in 40 CFR 60, Appendix B. Following the performance evaluation, the permittee shall measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(l)]
- i. Within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of EU 026, and every 5 years thereafter, the permittee shall perform individual stack testing for PM, PM₁₀, and PM_{2.5} emissions from EU 026 using 40 CFR 51, Appendix M, Method 201A, and 40 CFR 60, Appendix A, Method 5, or an alternate method as approved by the Division, on both the inlet and outlet of the baghouse. [401 KAR 51:017]

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

- i. Prior to the test, the permittee shall establish a pressure drop range and volumetric flowrate range in accordance with the manufacturer's written instructions and operate the control device within these ranges during the test.
 - ii. The permittee shall monitor process weight rate, fan amps, and volumetric flow rate during the test.
 - iii. This testing shall establish an inlet and outlet emission factor for EU 026 for PM, PM₁₀, and PM_{2.5} in lb/ton of aluminum shredded and demonstrate compliance with the emission limits in **2. Emission Limitations**.
 - iv. The fan amps and volumetric flow rate shall be monitored during the test.
- j. Testing performed to satisfy the requirements of 40 CFR 63, Subpart RRR may also satisfy the requirements of **3. Testing Requirements (i)** if the permittee submits the stack test protocol to the Division such that it identifies the dual purpose of the test.
- k. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.
- 4. Specific Monitoring Requirements:**
- a. The permittee shall prepare and implement for each scrap shredder a written operation, maintenance, and monitoring (OM&M) plan. Refer to **6. Specific Reporting Requirements (a) and (b)**, below, for OM&M plan requirements. [40 CFR 63.1510(b)]
 - b. 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 the capture/collection systems for EU 026 at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR 63.1506(c) and record the results of each inspection. [40 CFR 63.1510(d)(2)]
 - iii. Meet the requirements in **Section E**.
 - c. The permittee must install and operate a bag leak detection system as required in 40 CFR 63.1510(f)(1), install and operate a continuous opacity monitoring system as required in 40 CFR 63.1510(f)(2), or conduct visible emission observations as required in 40 CFR 63.1510(f)(3) on the control device. [40 CFR 63.1510(f)]
 - i. These requirements apply to the permittee if a bag leak detection system is used: [40 CFR 63.1510(f)(1)]
 - 1) The permittee shall install and operate a bag leak detection system for each exhaust stack of a fabric filter. [40 CFR 63.1510(f)(1)(i)]
 - 2) Each bag leak detection system must be installed, calibrated, operated, and maintained according to the manufacturer's operating instructions. [40 CFR 63.1510(f)(1)(ii)]
 - 3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.1510(f)(1)(iii)]

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

- 4) The bag leak detection system sensor must provide output of relative or absolute PM loadings. [40 CFR 63.1510(f)(1)(iv)]
 - 5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor. [40 CFR 63.1510(f)(1)(v)]
 - 6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. [40 CFR 63.1510(f)(1)(vi)]
 - 7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter. [40 CFR 63.1510(f)(1)(vii)]
 - 8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.1510(f)(1)(viii)]
 - 9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.1510(f)(1)(ix)]
 - 10) Following initial adjustment of the system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. [40 CFR 63.1510(f)(1)(x)]
- ii. The following requirements apply to the permittee if a continuous opacity monitoring system is used: [40 CFR 63.1510(f)(2)]
 - 1) The permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack. [40 CFR 63.1510(f)(2)(i)]
 - 2) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in 40 CFR 60, Appendix B. [40 CFR 63.1510(f)(2)(ii)]
 - iii. The following requirements apply to the permittee if visible emission observations are conducted. The permittee shall: [40 CFR 63.1510(f)(3)]
 - 1) Perform a visible emissions test for each aluminum scrap shredder using a certified observer at least once a day according to the requirements of Method 9 in 40 CFR 60, Appendix A. Each Method 9 test must consist of five 6-minute observations in a 30-minute period; and [40 CFR 63.1510(f)(3)(i)]
 - 2) Record the results of each test. [40 CFR 63.1510(f)(3)(ii)]
 - iv. As an alternative to the requirements of 40 CFR 63.1510(f)(3), the permittee may measure the opacity of the emissions discharged through a stack or stacks using ASTM Method D7520-13 (incorporated by reference, see 40 CFR 63.14) subject to the requirements of paragraphs 40 CFR 63.1510(f)(4)(i) through (iv), below. Each test must consist of five 6-minute observations in a 30-minute period. [40 CFR 63.1510(f)(4)]

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

- 1) During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520-13, the permittee or the DCOT vendor shall present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). [40 CFR 63.1510(f)(4)(i)]
 - 2) The permittee shall also have standard operating procedures in place including daily or other frequency quality checks to ensure that equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520-13. [40 CFR 63.1510(f)(4)(ii)]
 - 3) The permittee shall follow the recordkeeping procedures outlined in 40 CFR 63.10(b)(1) for DCOT certification, compliance report, data sheets and all raw unaltered JPEGs used for opacity and certification determination. [40 CFR 63.1510(f)(4)(iii)]
 - 4) The permittee or the DCOT vendor shall have a minimum of four (4) independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity on any one reading and the average error must not exceed 7.5 percent opacity. [40 CFR 63.1510(f)(4)(iv)]
- d. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
- i. The monthly and 12-month rolling scrap processed in tons;
 - ii. The monthly average process weight rate in tons/hr;
 - iii. The monthly hours of operation;
 - iv. The hourly PM emission rate, as calculated for **2. Emission Limitations**, in lb/hr;
 - v. The monthly and 12-month rolling emissions of PM, PM₁₀, and PM_{2.5} in tons.
- e. If neither a COM nor VE monitoring is chosen as the monitoring option for 40 CFR 63, Subpart RRR, the permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using Reference Method 9. In lieu of determining the opacity using U.S. EPA 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]
- f. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. As required by 40 CFR 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
 - i. The permittee shall retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained on-site and 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)]
- b. In addition to the general records required by 40 CFR 63.10(b), the permittee must maintain records of: [40 CFR 63.1517(b)]
- i. For each emission unit with emissions controlled by a fabric filter: [40 CFR 63.1517(b)(1)]
 - 1) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken. [40 CFR 63.1517(b)(1)(i)]
 - 2) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.1517(b)(1)(ii)]
 - 3) If an aluminum scrap shredder is subject to visible emission observation requirements, records of all Method 9 observations, including records of any visible emissions during a 30-minute daily test or records of all ASTM D7520-13 observations (incorporated by reference, see 40 CFR 63.14), including data sheets and all raw unaltered JPEGs used for opacity determination, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.1517(b)(1)(iii)]
 - ii. For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]
 - iii. Records of annual inspections of emission capture/collection and closed vent systems or, if the alternative to the annual flow rate measurements is used, records of differential pressure; fan RPM or fan motor amperage; static pressure measurements; or duct centerline velocity using a hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple, as appropriate. [40 CFR 63.1517(b)(14)]
 - iv. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]
 - v. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including the OM&M plan. [40 CFR 63.1517(b)(16)]
 - vi. For any failure to meet an applicable standard, the permittee must maintain the following records; [40 CFR 63.1517(b)(18)]
 - 1) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken. [40 CFR 63.1517(b)(18)(i)]

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

- 2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.1517(b)(18)(ii)]
- c. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
 - i. The monthly and 12-month rolling scrap processed in tons;
 - ii. The monthly average process weight rate in tons/hr;
 - iii. The monthly hours of operation;
 - iv. The hourly PM emission rate, as calculated for **2. Emission Limitations**, in lb/hr;
 - v. The monthly and 12-month rolling emissions of PM, PM₁₀, and PM_{2.5} in tons.
 - vi. A log of the qualitative visual observations made as specified in **4. Specific Monitoring Requirements (e)** including the date, time, initials of observer, whether any emissions were observed (yes/no), and any U.S. EPA Reference Method 9 readings taken.
 - vii. Any time that an emission unit was not operated according to the GWP plan with a description of the situation and actions taken to remedy the issue.
 - d. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

- a. The permittee shall submit the OM&M plan within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan shall be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b) and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(b)]
- b. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]
 - i. If the Division determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of 40 CFR 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.
 - ii. If the permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the permittee submits a description of the changes and a revised plan incorporating them to the Division.
- c. If the permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR 63.1510(j)(5) and 40 CFR 63.1510(v), the permittee may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in 40 CFR 63.1510(w)(1) through (6). [40 CFR 63.1510(w)]
 - i. The Administrator will not approve averaging periods other than those specified in 40 CFR 63.1510. [40 CFR 63.1510(w)(1)]

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

- ii. The permittee must continue to use the original monitoring requirement until necessary data are submitted and approval is received to use another monitoring procedure. [40 CFR 63.1510(w)(2)]
 - iii. The permittee shall submit the application for approval of alternate monitoring methods no later than the notification of the performance test. The application shall contain the information specified in 40 CFR 63.1510(w)(3)(i) through (iii): [40 CFR 63.1510(w)(3)]
 - 1) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach; [40 CFR 63.1510(w)(3)(i)]
 - 2) A description of the proposed alternative monitoring requirements, including the operating parameters to be monitored, the monitoring approach and technique, and how the limit is to be calculated; and [40 CFR 63.1510(w)(3)(ii)]
 - 3) Data and information documenting that the alternative monitoring requirement(s) would provide equivalent or better assurance of compliance with the relevant emission standard(s). [40 CFR 63.1510(w)(3)(iii)]
 - iv. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard(s). Before disapproving any alternate monitoring application, the Administrator will provide: [40 CFR 63.1510(w)(4)]
 - 1) Notice of the information and findings upon which the intended disapproval is based; and [40 CFR 63.1510(w)(4)(i)]
 - 2) Notice of opportunity for the permittee to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the permittee to provide additional supporting information. [40 CFR 63.1510(w)(4)(ii)]
 - v. The permittee is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application nor the Administrator's failure to approve or disapprove the application relieves the permittee of the responsibility to comply with any provisions of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(w)(5)]
 - vi. The Administrator may decide at any time, on a case-by-case basis, that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(w)(6)]
- d. The permittee must submit a notification of compliance status report within 90 days after conducting the initial performance test required by 40 CFR 63.1511(b). The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include: [40 CFR 63.1512(q), 40 CFR 63.1512(s), 40 CFR 63.1515(b)]
- i. All information required in 40 CFR 63.9(h). The permittee shall provide a complete performance test report for each affected source. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests). [40 CFR 63.1515(b)(1)]

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

- ii. The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system). [40 CFR 63.1515(b)(2)]
 - iii. The compliant operating parameter value or range established for each affected source with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, total reactive fluorine flux injection rate for uncontrolled group 1 furnaces, afterburner operating temperature, fabric filter inlet temperature), including the operating cycle or time period used in the performance test. [40 CFR 63.1515(b)(4)]
 - iv. Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in 40 CFR 63.1506(c). [40 CFR 63.1515(b)(5)]
 - v. If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems as specified in 40 CFR 63.1510(f). [40 CFR 63.1515(b)(6)]
 - vi. The OM&M plan. [40 CFR 63.1515(b)(9)]
- e. The permittee must submit semiannual reports according to the requirements in 40 CFR 63.10(e)(3) and **Section F.5**. Except, the permittee shall submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in 40 CFR 63.10(e)(3)(v). When no deviations of parameters have occurred, the permittee must submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any of the following conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]
- i. 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)]
 - ii. 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)]
 - iii. The corrective action specified in the OM&M plan for visible emissions from an aluminum scrap shredder was not initiated within 1 hour. [40 CFR 63.1516(b)(1)(iii)]
 - iv. An excursion of a compliant process or operating parameter value or range (e.g., lime injection rate or screw feeder setting, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature, definition of acceptable scrap, or other approved operating parameter). [40 CFR 63.1516(b)(1)(iv)]
 - v. An affected source was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
- f. The permittee must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested. [40 CFR 63.1516(b)(3)]
- i. 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)]

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

- g. 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)]
 - h. 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)]
 - i. 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)]
 - j. All reports required by 40 CFR 63, Subpart RRR not subject to the requirements in 40 CFR 63.1516(b) shall 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)]
 - k. The permittee shall include, in the semi-annual report, any time that EU 026 was not operated according to the GWP plan required by **1. Operating Limitations (h)** with a description of the situation and actions taken to remedy the issue. Refer to **5. Specific Recordkeeping Requirements (c)**. [401 KAR 51:017]
 - l. Refer to **Section F** for general reporting requirements.
- 7. Specific Control Equipment Operating Conditions:**
- a. The permittee shall design, install, operate, and maintain a baghouse to control particulate emissions from EU 026. The baghouse must be designed to achieve an exit grain loading value of 0.002 gr/dscf. [401 KAR 51:017]

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

- b. The baghouse and capture system associated with EU 026 shall be properly maintained, used in conjunction with operation of the underlying emission unit, and operated consistent with the manufacturer's specifications at all times. [401 KAR 52:020, Section 10]
- c. Refer to **Section E**.

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

Emission Unit 029 (EU 029) Decoater

Description: Natural gas-fired rotary decoating kiln used to remove lacquers, oils, water, dust, and fines from aluminum scrap with the capability to charge to two sidewall melt furnaces or the NDC furnace. Shredder scrap is mainly sourced from Scrap Processing Line #1 but may also be manually fed from shredded scrap storage bunkers. This emission unit is a new scrap dryer/delacquering kiln/decoating kiln under 40 CFR 63, Subpart RRR.

Emission Unit	Unit Name	Maximum Capacity (ton/hr)	Maximum Burner Heat Input Capacity (MMBtu/hr)	Control Device	Construction Commenced
029	Decoater	27.6	30.2	Lime-Injected Hot Baghouse #1; Afterburner	2022

APPLICABLE REGULATIONS:

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

401 KAR 59:010, *New process operations*

401 KAR 63:002, Section 2(4)(ccc), 40 C.F.R. 63.1500 to 63.1519, Tables 1 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 Division 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. The permittee must provide and maintain easily visible labels posted at the scrap dryer/delacquering kiln/decoating kiln that identify the applicable emission limits and means of compliance, including: [40 CFR 63.1506(b)]
 - i. The type of affected source or emission unit (e.g. scrap dryer/delacquering kiln/decoating kiln). [40 CFR 63.1506(b)(1)]
 - ii. The applicable operational standard(s) and control method(s) (work practice or control device). This includes, but is not limited to, the type of charge to be used for a furnace, flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan. [40 CFR 63.1506(b)(2)]
 - iii. The afterburner operating temperature and design residence time for the scrap dryer/delacquering kiln/decoating kiln. [40 CFR 63.1506(b)(3)]
- c. The permittee must: [40 CFR 63.1506(c)]
 - i. Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained

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

- 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 the baghouse; 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. The permittee must: [40 CFR 63.1506(d)]
- i. Except as provided in 40 CFR 63.1506(d)(3), install and operate a device that measures and records or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; and [40 CFR 63.1506(d)(1)]
 - ii. Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan. [40 CFR 63.1506(d)(2)]
 - iii. The permittee may choose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit. [40 CFR 63.1506(d)(3)]
- e. The permittee must: [40 CFR 63.1506(g)]
- i. For each afterburner, [40 CFR 63.1506(g)(1)]
 - 1) Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test. [40 CFR 63.1506(g)(1)(i)]
 - 2) Operate each afterburner in accordance with the OM&M plan. [40 CFR 63.1506(g)(1)(ii)]
 - ii. If a bag leak detection system is used to meet the fabric filter monitoring requirements in 40 CFR 63.1510, [40 CFR 63.1506(g)(2)]
 - 1) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete any necessary corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(g)(2)(i)]
 - 2) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the permittee to initiate corrective action. [40 CFR 63.1506(g)(2)(ii)]
 - iii. If a continuous opacity monitoring system is used to meet the monitoring requirements in 40 CFR 63.1510, initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(g)(3)]
 - iv. Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F). [40 CFR 63.1506(g)(4)]

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

- v. For a continuous injection device, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at or above the level established during the performance test. [40 CFR 63.1506(g)(5)]
- f. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]
- g. The permittee shall prepare and implement for each decoating kiln, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (b)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]
 - i. Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device. [40 CFR 63.1510(b)(1)]
 - ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]
 - iii. Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in 40 CFR 63.1505. [40 CFR 63.1510(b)(3)]
 - iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
 - 1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
 - 2) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in 40 CFR 63, Subpart A. [40 CFR 63.1510(b)(4)(ii)]
 - v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]

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

- vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
 - 1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]
 - 2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]
- vii. A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. [40 CFR 63.1510(b)(7)]
- h. The BACT determination for Greenhouse Gases (CO₂e) requires the facility to meet the following design and operational requirements: [401 KAR 51:017]
 - i. The facility design shall include ultra-low NO_x cold air baffle burners,
 - ii. Monitoring of afterburner temperature, kiln temperature, combustion fuel/air ratios, kiln inlet O₂, and kiln operating pressure as part of an overall control system to minimize the amount of natural gas supplied to the kiln and maximize the amount of heat generated from the partial oxidation of coatings on the incoming scrap stream,
 - iii. Installing and maintaining kiln feed and discharge airlocks and seals to minimize vagrant air inflow.
 - iv. Maintaining low external surface temperatures of rotary drums through installation and maintenance of adequate refractory/insulation lining to minimize convective and radiant heat losses.
- i. The permittee shall prepare and maintain, within 90 days of startup, a good combustion and operation practices (GCOP) plan that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing PM, PM₁₀, PM_{2.5}, NO_x, CO, VOC, and GHG emissions. Any revisions requested by the Division shall be made and the revisions shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]
 - i. A list of combustion optimization practices and a means of verifying the practices have occurred.
 - ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred.
 - iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.
- j. The permittee shall install low-NO_x burners on EU 029. [401 KAR 51:017]
- k. The permittee shall limit the operation of EU 029 as necessary to comply with the emission standards in **2. Emission Limitations**. [401 KAR 51:017]

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

- 1) For **1. Operating Limitations** (a) through (g), the permittee shall demonstrate compliance by meeting the requirements in **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.
- 2) For **1. Operating Limitations** (h) and (i), the permittee shall demonstrate compliance as follows:
 - A. The facility construction shall be completed in accordance with the approved GCOP plan. Refer to **6. Specific Reporting Requirements** (m).
 - B. Prepare, maintain, and implement the GCOP plan. Refer to **5. Specific Recordkeeping Requirements** (c-d) and **6. Specific Reporting Requirements** (l).
 - C. The permittee shall perform testing for PM, PM₁₀, PM_{2.5}, NO_x, CO, and VOC. Refer to **3. Testing Requirements** (p).

2. Emission Limitations:

- a. The permittee must not discharge or cause to be discharged to the atmosphere emissions in excess of: [40 CFR 63.1505(d)(1)]
 - i. 0.03 kg of THC, as propane, per Mg (0.06 lb of THC, as propane, per ton) of feed/charge; [40 CFR 63.1505(d)(1)(i)]
 - ii. 0.04 kg of PM per Mg (0.08 lb per ton) of feed/charge; [40 CFR 63.1505(d)(1)(ii)]
 - iii. 0.25 µg of D/F TEQ per Mg (3.5×10^{-6} gr of D/F TEQ per ton) of feed/charge; and [40 CFR 63.1505(d)(1)(iii)]
 - iv. 0.40 kg of HCl per Mg (0.80 lb per ton) of feed/charge. [40 CFR 63.1505(d)(1)(iv)]
- b. The permittee may choose to comply with the emission limits in 40 CFR 63.1505(e) as an alternative to the limits in 40 CFR 63.1505(d) if the scrap dryer/delacquering kiln/decoating kiln is equipped with an afterburner having a design residence time of at least 1 second and the afterburner is operated at a temperature of at least 760°C (1400°F) at all times. The permittee must not discharge or cause to be discharged to the atmosphere emissions in excess of: [40 CFR 63.1505(e)(1)]
 - i. 0.10 kg of THC, as propane, per Mg (0.20 lb of THC, as propane, per ton) of feed/charge; [40 CFR 63.1505(e)(1)(i)]
 - ii. 0.15 kg of PM per Mg (0.30 lb per ton) of feed/charge; [40 CFR 63.1505(e)(1)(ii)]
 - iii. 5.0 µg of D/F TEQ per Mg (7.0×10^{-5} gr of D/F TEQ per ton) of feed/charge; and [40 CFR 63.1505(e)(1)(iii)]
 - iv. 0.75 kg of HCl per Mg (1.50 lb pr ton) of feed/charge. [40 CFR 63.1505(e)(1)(iv)]
- c. The permittee shall not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option. [40 CFR 63.1505(d)(2); 40 CFR 63.1505(e)(2)]
- d. The permittee shall not cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

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

e. For emissions from a control device or stack the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2)]

- i. For process weight rates of ≤ 0.5 tons/hour: 2.34 lbs/hr
- ii. For process weight rates of ≤ 30 tons/hour: $E = 3.59P^{0.62}$

Where:

E = rate of emission in lb/hr; and

P = process weight rate in tons/hr.

f. The permittee shall not allow the emissions of PM, PM₁₀, and PM_{2.5} to exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for PM (filterable)	BACT for PM ₁₀	BACT for PM _{2.5}
029	Decoater	1.66 lb/hr; 7.26 ton/yr	5.38 lb/hr; 23.58 ton/yr	5.22 lb/hr; 22.86 ton/yr

Note: lb/hr limits are based on a 3-hour average and ton/yr limits are based on a 12-month rolling total.

g. The permittee shall not allow the emissions of CO, NO_x, VOC, and GHG to exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for CO	BACT for NO _x	BACT for VOC	BACT for GHG (CO ₂ e)
029	Decoater	7.73 lb/hr; 33.87 tons/yr	8.82 lb/hr; 38.63 tons/yr	4.58 lb/hr; 20.04 tons/yr	52,293 tpy

Note: lb/hr limits are based on a 3-hour average and ton/yr limits are based on a 12-month rolling total.

Compliance Demonstration Method:

- 1) For **2. Emission Limitations (a) and (b)**, the permittee shall demonstrate compliance using the equations in 40 CFR 63.1513 and by meeting the requirements in **3. Testing Requirements, 4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements, and 6. Specific Reporting Requirements.**
- 2) For **2. Emission Limitations (d)**, compliance is assumed when complying with **2. Emission Limitations (c)**. However, if a COM is not chosen as the monitoring option, compliance with **2. Emission Limitations (d)** must be demonstrated by complying with **4. Specific Monitoring Requirements (o)** and **5. Specific Recordkeeping Requirements (e)(vii).**
- 3) For **2. Emission Limitations (e)**, the permittee shall demonstrate compliance each month by comparing the allowable rate to the actual rate calculated using the following equation:

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

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

Where:

i = month;

E_{PMi} = the actual average hourly particulate emissions rate for month i (lb/hr);

P_i = the actual specific operating parameter for month i (units/month);

EF_{PM} = the overall uncontrolled KYEIS particulate emission factor (lb/unit);

h_i = the actual total hours of operation for month i (hrs/month); and

CE = the overall control efficiency (%).

- 4) For **2. Emission Limitations (f)** and **(g)** the permittee shall demonstrate compliance by meeting the requirements in **1. Operating Limitations (i)**, **3. Testing Requirements (p-q)**, **4. Specific Monitoring Requirements (n)**, and **5. Specific Recordkeeping Requirements (c-e)**.

3. Testing Requirements:

- a. Prior to conducting any performance test required by 40 CFR 63, Subpart RRR, the permittee must prepare a site-specific test plan which satisfies all of the rule requirements, and must obtain approval of the plan pursuant to the procedures set forth in 40 CFR 63.7. Performance tests shall be conducted under such conditions as the Administrator specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1511(a)]
- b. 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 report the results in the notification of compliance status report as described in 40 CFR 63.1515(b). The permittee must conduct this initial performance test within 180 days after startup of the emission unit. Except for the date by which the performance test must be conducted, the permittee must conduct each performance test in accordance with the requirements and procedures set forth in 40 CFR 63.7(c). [40 CFR 63.1511(b)]
- i. The performance tests must be conducted under representative conditions expected to produce the highest level of HAP emissions expressed in the units of the emission standards for the HAP (considering the extent of feed/charge contamination, reactive flux addition rate and feed/charge rate). If a single test condition is not expected to produce the highest level of emissions for all HAP, testing under two or more sets of conditions (for example high contamination at low feed/charge rate, and low contamination at high feed/charge rate) may be required. Any subsequent performance tests for the purposes of establishing new or revised parametric limits shall be allowed upon pre-approval from the Division. These new parametric settings shall be used to demonstrate compliance for the period being tested. [40 CFR 63.1511(b)(1)]
- ii. Each performance test for a continuous process must consist of 3 separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of 3 hours. [40 CFR 63.1511(b)(2)]
- iii. Where multiple affected sources or emission units are exhausted through a common stack, pollutant sampling for each run must be conducted over a period of time during

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

- which all affected sources or emission units complete at least 1 entire process operating cycle or for 24 hours, whichever is shorter. [40 CFR 63.1511(b)(4)]
- iv. Initial compliance with an applicable emission limit or standard is demonstrated if the average of three runs conducted during the performance test is less than or equal to the applicable emission limit or standard. [40 CFR 63.1511(b)(5)]
 - v. Apply 40 CFR 63.1511(b)(1) through (5) for each pollutant separately if a different production rate, charge material or, if applicable, reactive fluxing rate would apply and thereby result in a higher expected emissions rate for that pollutant. [40 CFR 63.1511(b)(6)]
 - vi. The permittee shall 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 25A for the concentration of THC, as propane. [40 CFR 63.1511(c)(8)]
 - ix. 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. [40 CFR 63.1511(c)(9)]
- d. The permittee may use alternative test methods as provided in 40 CFR 63.1511(d)(1) through (3), below: [40 CFR 63.1511(d)]
- i. In lieu of conducting the annual flow rate measurements using Methods 1 and 2, the permittee may use Method 204 in 40 CFR 51, Appendix M, to conduct annual verification of a permanent total enclosure for the affected source/emission unit. [40 CFR 63.1511(d)(2)]
 - ii. The permittee may use an alternative test method approved by the Administrator. [40 CFR 63.1511(d)(3)]
- e. The permittee must conduct a performance test every 5 years following the initial performance test. [40 CFR 63.1511(e)]
- f. The permittee must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the permittee must use the appropriate procedures in 40 CFR 63.1511 and submit the information required by 40 CFR 63.1515(b)(4) in the notification of compliance status report. The permittee may use existing data in addition to the results of performance tests to establish operating parameter

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

values for compliance monitoring provided each of the following conditions are met to the satisfaction of the Division: [40 CFR 63.1511(g)]

- i. The complete emission test report(s) used as the basis of the parameter(s) is submitted. [40 CFR 63.1511(g)(1)]
 - ii. The same test methods and procedures as required by 40 CFR 63, Subpart RRR were used in the test. [40 CFR 63.1511(g)(2)]
 - iii. The permittee certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report. [40 CFR 63.1511(g)(3)]
 - iv. All process and control equipment operating parameters required to be monitored were monitored as required in 40 CFR 63, Subpart RRR and documented in the test report. [40 CFR 63.1511(g)(4)]
 - v. If the permittee wants to conduct a new performance test and establish different operating parameter values, a revised site specific test plan must be submitted and the permittee shall 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, the requirements in 40 CFR 63.1511(g)(1) through (4) must be met. [40 CFR 63.1511(g)(5)]
- g. The permittee must conduct performance tests to measure emissions of THC, D/F, HCl, and PM at the outlet of the control device. [40 CFR 63.1512(c)]
- i. If the scrap dryer/delacquering kiln/decoating kiln is subject to the alternative emission limits in 40 CFR 63.1505(e), the average afterburner operating temperature in each 3-hour block period must be maintained at or above 760 °C (1400 °F) for the test. [40 CFR 63.1512(c)(1)]
 - ii. The permittee of a scrap dryer/delacquering kiln/decoating kiln subject to the alternative limits in 40 CFR 63.1505(e) must submit a written certification in the notification of compliance status report containing the information required by 40 CFR 63.1515(b)(7). [40 CFR 63.1512(c)(2)]
- h. 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 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 weight of aluminum produced by the affected source shall be measured instead of the feed/charge weight. [40 CFR 63.1512(k)]
- i. If the permittee uses a continuous opacity monitoring system, the permittee must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in 40 CFR 60, Appendix B. Following the performance evaluation, the permittee shall measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(l)]
 - j. If the permittee uses the afterburner to comply with the alternative emission limits in 40 CFR 63.1505(e): [40 CFR 63.1512(m)]

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

- i. Prior to the initial performance test, the permittee must conduct a performance evaluation for the temperature monitoring device according to the requirements of 40 CFR 63.8. [40 CFR 63.1512(m)(1)]
- ii. The permittee must use the following procedures to establish an operating parameter value or range for the afterburner operating temperature: [40 CFR 63.1512(m)(2)]
 - 1) Continuously measure and record the operating temperature of each afterburner every 15 minutes during the THC and D/F performance tests; [40 CFR 63.1512(m)(2)(i)]
 - 2) Determine and record the 15-minute block average temperatures for the three test runs; and [40 CFR 63.1512(m)(2)(ii)]
 - 3) Determine and record the 3-hour block average temperature measurements for the 3 test runs. [40 CFR 63.1512(m)(2)(iii)]
- k. The permittee must use the following procedures to establish an operating parameter value or range for the inlet gas temperature of the lime-injected fabric filter: [40 CFR 63.1512(n)]
 - i. Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests; [40 CFR 63.1512(n)(1)]
 - ii. Determine and record the 15-minute block average temperatures for the 3 test runs; and [40 CFR 63.1512(n)(2)]
 - iii. Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs. [40 CFR 63.1512(n)(3)]
- l. The permittee must use the following procedures during the HCl and D/F tests to establish an operating parameter value for the feeder setting for each operating cycle or time period used in the performance test. [40 CFR 63.1512(p)]
 - i. For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and [40 CFR 63.1512(p)(1)]
 - ii. Record the feeder setting and lime injection rate for the 3 test runs. If the feed rate setting and lime injection rates vary during the runs, determine and record the average feed rate and lime injection rate from the 3 runs. [40 CFR 63.1512(p)(2)]
- m. To determine compliance with the emission limitations in **2. Emission Limitations (a) and (b)**, above, the following equations shall be used: [40 CFR 63.1513(a) & (b)]
 - i. To determine compliance with an emission limit for THC, the following equation shall be used: [40 CFR 63.1513(a)]

$$E = \frac{C \times MW \times Q \times K_1 \times K_2}{M_v \times P \times 10^6}$$

Where:

E = Emission rate of measured pollutant, lb/ton (kg/Mg) of feed;

C = Measured volume fraction of pollutant, ppmv;

MW = Molecular weight of measured pollutant, lb/lb-mole (g/g-mole):

THC (as propane) = 44.11;

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

K_1 = Conversion factor, 1 lb/lb (1 kg/1,000 g);

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K_2 = Conversion factor, 1 ft³/ft³ (1,000 L/m³);
 M_v = Molar volume, 385.3 ft³/lb-mole (24.45 L/g-mole); and
 P = Production rate, ton/hr (Mg/hr).

- ii. To determine compliance with an emission limit for PM, HCL, or HF, the following equation shall be used: [40 CFR 63.1513(b)(1)]

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

Where:

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

C = Concentration of PM, HCl or HF, in gr/dscf (g/dscm);

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

K_1 = Conversion factor, 1 lb/7,000 gr (1 kg/1,000 g); and

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

- iii. To determine compliance with an emission limit for D/F, the following equation shall be used: [40 CFR 63.1513(b)(2)]

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

Where:

E = Emission rate of D/F, gr/ton (µg/Mg) of feed;

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

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

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

- n. To convert D/F measurements to TEQ units, the permittee must use the procedures and equations in “Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update”, incorporated by reference see 40 CFR 63.14. [40 CFR 63.1513(d)]
- o. For the decoating kilns, 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). [40 CFR 63.1513(f)]
- i. For periods of startup and shutdown, records establishing a feed/charge rate of zero, a flux rate of zero, and that the affected source or emission unit was either heated with electricity, propane or natural gas as the sole sources of heat or was not heated, may be used to demonstrate compliance with the emission limit, or [40 CFR 63.1513(f)(1)]
- ii. For periods of startup and shutdown, divide the measured emissions in lb/hr or µg/hr or ng/hr by the feed/charge rate in tons/hr or Mg/hr from the most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data is available. [40 CFR 63.1513(f)(2)]
- p. Within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of EU 029, and every 5 years thereafter, the permittee shall perform stack testing

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

for NO_x, VOC and CO emissions from EU 029 using the following methods: [401 KAR 51:017]

- i. U.S. EPA Method 7E for NO_x;
- ii. U.S. EPA Method 25A for VOC; and
- iii. U.S. EPA Method 10 for CO;
- iv. An alternate method as approved by the Division;
- v. This testing shall establish an emission factor for EU 029 for NO_x, VOC, and CO in lb/ton of aluminum and demonstrate compliance with the emission limits in **2. Emission Limitations (g).**

- q. Within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of EU 029, and every 5 years thereafter, the permittee shall perform stack testing for PM, PM₁₀, and PM_{2.5} emissions from EU 029, using 40 CFR 51, Appendix M, Method 201A/202, and 40 CFR 60, Appendix A, Method 5 (or an alternate method as approved by the Division) on both the inlet and outlet of the baghouse. [401 KAR 51:017]
 - i. Prior to the test, the permittee shall establish a pressure drop range and volumetric flowrate range in accordance with the manufacturer's written instructions and operate the control device within these ranges during the test.
 - ii. The permittee shall monitor process weight rate, fan amps, and volumetric flow rate during the test.
 - iii. This testing shall establish an inlet and outlet emission factor for EU 029 for PM, PM₁₀, and PM_{2.5} in lb/ton of aluminum and demonstrate compliance with the emission limits in **2. Emission Limitations (f).**
- r. Testing performed to satisfy the requirements of 40 CFR 63, Subpart RRR may also satisfy the requirements of **3. Testing Requirements (p) – (q)** if the permittee submits the stack test protocol to the Division such that it identifies the dual purpose of the test.
- s. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

- a. The permittee shall prepare and implement for the scrap dryer/delacquering kiln/decoating kiln, a written operation, maintenance, and monitoring (OM&M) plan. Refer to **6. Specific Reporting Requirements (a) and (b)**, below, for OM&M plan requirements. [40 CFR 63.1510(b)]
- b. The permittee must inspect the labels for the scrap dryer/delacquering kiln/decoating kiln at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible. [40 CFR 63.1510(c)]
- c. The permittee must: [40 CFR 63.1510(d)]
 - i. Install, operate, and maintain a capture/collection system for the scrap dryer/delacquering kiln/decoating kiln; and [40 CFR 63.1510(d)(1)]

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

- ii. Inspect the capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR 63.1506(c) and record the results of each inspection. [40 CFR 63.1510(d)(2)]
 - iii. Meet the requirements in **Section E**.
- d. 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 over the same operating cycle or time period used in the performance test. As an alternative to a measurement device, the permittee may use a procedure acceptable to the Division to determine the total weight of feed/charge or aluminum production to the affected source. [40 CFR 63.1510(e)]
- i. The accuracy of the weight measurement device or procedure must be ± 1 percent of the weight being measured. The permittee may apply to the Division for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standard. [40 CFR 63.1510(e)(1)]
 - ii. The permittee must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. [40 CFR 63.1510(e)(2)]
- e. The permittee must install, calibrate, maintain, and continuously operate a bag leak detection system as required in 40 CFR 63.1510(f)(1) or a continuous opacity monitoring system as required in 40 CFR 63.1510(f)(2). [40 CFR 63.1510(f)]
- i. The following requirements apply to the permittee if a bag leak detection system is used. [40 CFR 63.1510(f)(1)]
 - 1) The permittee shall install and operate a bag leak detection system for each exhaust stack of a fabric filter. [40 CFR 63.1510(f)(1)(i)]
 - 2) Each bag leak detection system must be installed, calibrated, operated, and maintained according to the manufacturer's operating instructions. [40 CFR 63.1510(f)(1)(ii)]
 - 3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.1510(f)(1)(iii)]
 - 4) The bag leak detection system sensor must provide output of relative or absolute PM loadings. [40 CFR 63.1510(f)(1)(iv)]
 - 5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor. [40 CFR 63.1510(f)(1)(v)]
 - 6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. [40 CFR 63.1510(f)(1)(vi)]
 - 7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced

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

- air fabric filters, the bag leak detector must be installed downstream of the fabric filter. [40 CFR 63.1510(f)(1)(vii)]
- 8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.1510(f)(1)(viii)]
 - 9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.1510(f)(1)(ix)]
 - 10) Following initial adjustment of the system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. [40 CFR 63.1510(f)(1)(x)]
- ii. The following requirements apply to the permittee if a continuous opacity monitoring system is used. [40 CFR 63.1510(f)(2)]
 - 1) The permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack. [40 CFR 63.1510(f)(2)(i)]
 - 2) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in 40 CFR 60, Appendix B. [40 CFR 63.1510(f)(2)(ii)]
- f. The permittee shall install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in 40 CFR 63, Subpart A. [40 CFR 63.1510(g)(1)]
- g. The temperature monitoring device installed to comply with **4. Specific Monitoring Requirements** (f) must meet each of the following performance and equipment specifications: [40 CFR 63.1510(g)(2)]
- i. The temperature monitoring device must be installed at the exit of the combustion zone of each afterburner. [40 CFR 63.1510(g)(2)(i)]
 - ii. The monitoring system must record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period. [40 CFR 63.1510(g)(2)(ii)]
 - iii. The recorder response range shall include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(m). [40 CFR 63.1510(g)(2)(iii)]
 - iv. The reference method shall be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator. [40 CFR 63.1510(g)(2)(iv)]
- h. The permittee must conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection shall include: [40 CFR 63.1510(g)(3)]
- i. Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor; [40 CFR 63.1510(g)(3)(i)]

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

- ii. Inspection for proper adjustment of combustion air; [40 CFR 63.1510(g)(3)(ii)]
 - iii. Inspection of internal structures (e.g., baffles) to ensure structural integrity; [40 CFR 63.1510(g)(3)(iii)]
 - iv. Inspection of dampers, fans, and blowers for proper operation; [40 CFR 63.1510(g)(3)(iv)]
 - v. Inspection for proper sealing; [40 CFR 63.1510(g)(3)(v)]
 - vi. Inspection of motors for proper operation; [40 CFR 63.1510(g)(3)(vi)]
 - vii. Inspection of combustion chamber refractory lining and clean and replace lining as necessary; [40 CFR 63.1510(g)(3)(vii)]
 - viii. Inspection of afterburner shell for corrosion and/or hot spots; [40 CFR 63.1510(g)(3)(viii)]
 - ix. Documentation, for the burn cycle that follows the inspection, that the afterburner is operating properly and any necessary adjustments have been made; and [40 CFR 63.1510(g)(3)(ix)]
 - x. Verification that the equipment is maintained in good operating condition. [40 CFR 63.1510(g)(3)(x)]
 - xi. Following an equipment inspection, all necessary repairs shall be completed in accordance with the requirements of the OM&M plan. [40 CFR 63.1510(g)(3)(xi)]
- 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)]
 - j. The temperature monitoring device installed to comply with **4. Specific Monitoring Requirements** (i) must meet each of the following performance and equipment specifications: [40 CFR 63.1510(h)(2)]
 - i. 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)]
 - ii. 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)]
 - iii. The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Division. [40 CFR 63.1510(h)(2)(iii)]
 - k. The permittee must verify that lime is always free-flowing in the continuous-lime injection system by either: [40 CFR 63.1510(i)(1)]
 - i. Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the permittee 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)]

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

- ii. 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)]
 - iii. 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)]
1. The permittee must record the lime feeder setting once each day of operation. [40 CFR 63.1510(i)(2)]
- m. At least once per month, the permittee must verify that the lime injection rate in pounds per hour (lb/hr) is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. If the monthly check of the lime injection rate is below the 90 percent, the permittee must repair or adjust the lime injection system to restore normal operation within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to demonstrate that the lime injection rate is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. In the event that a lime feeder is repaired or replaced, the feeder must be calibrated, and the feed rate must be restored to the lb/hr feed rate operating limit established during the most recent performance test within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to complete the repair or replacement and establishing a new setting. The repair or replacement, and the establishment of the new feeder setting(s) must be documented in accordance with the recordkeeping requirements of 40 CFR 63.1517. [40 CFR 63.1510(i)(4)]
 - n. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
 - i. The monthly and 12-month rolling scrap processed in tons;
 - ii. The monthly average process weight rate in tons/hr;
 - iii. The monthly hours of operation;
 - iv. The hourly PM emission rate, as calculated for **2. Emission Limitations (e)**, in lb/hr;
 - v. The monthly and 12-month rolling emissions of PM, PM₁₀, PM_{2.5}, CO, NO_x, VOC, and CO_{2e} in tons.
 - vi. The monthly and 12-month rolling natural gas usage in MMscf.
 - o. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using Reference Method 9. In lieu of determining the opacity using U.S. EPA Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

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

p. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. As required by 40 CFR 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
 - i. The permittee shall retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained on-site and the remaining 3 years of records may be retained off site. [40 CFR 63.1517(a)(1)]
 - ii. The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and [40 CFR 63.1517(a)(2)]
 - iii. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]
- b. In addition to the general records required by 40 CFR 63.10(b), the permittee must maintain records of: [40 CFR 63.1517(b)]
 - i. For each affected source with emissions controlled by a fabric filter or a lime-injected fabric filter: [40 CFR 63.1517(b)(1)]
 - 1) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken. [40 CFR 63.1517(b)(1)(i)]
 - 2) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.1517(b)(1)(ii)]
 - ii. For each affected source with emissions controlled by an afterburner: [40 CFR 63.1517(b)(2)]
 - 1) Records of 15-minute block average afterburner operating temperature, including any period when the average temperature in any 3-hour block period falls below the compliant operating parameter value with a brief explanation of the cause of the excursion and the corrective action taken; and [40 CFR 63.1517(b)(2)(i)]
 - 2) Records of annual afterburner inspections. [40 CFR 63.1517(b)(2)(ii)]
 - iii. For each scrap dryer/delacquering kiln/decoating kiln, subject to D/F and HCl emission standards with emissions controlled by a lime-injected fabric filter, records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value + 14 °C (+ 25 °F), with a brief explanation of the cause of the excursion and the corrective action taken. [40 CFR 63.1517(b)(3)]
 - iv. For each affected source with emissions controlled by a lime-injected fabric filter: [40 CFR 63.1517(b)(4)]

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

- 1) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken; [40 CFR 63.1517(b)(4)(i)]
- 2) If lime feeder setting is monitored, records of daily 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)]
- 3) 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)]
- 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 subject to an emission standard in kg/Mg (lb/ton) of feed/charge, records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test. [40 CFR 63.1517(b)(7)]
- vii. Records of monthly inspections for proper unit labeling for each affected source. [40 CFR 63.1517(b)(13)]
- viii. Records of annual inspections of emission capture/collection and closed vent systems or, if the alternative to the annual flow rate measurements is used, records of differential pressure; fan RPM or fan motor amperage; static pressure measurements; or duct centerline velocity using a hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple, as appropriate. [40 CFR 63.1517(b)(14)]
- ix. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]
- x. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including the OM&M plan. [40 CFR 63.1517(b)(16)]
- xi. For any failure to meet an applicable standard, the permittee must maintain the following records; [40 CFR 63.1517(b)(18)]
 - 1) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken. [40 CFR 63.1517(b)(18)(i)]

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

- 2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.1517(b)(18)(ii)]
- xii. For each period of startup or shutdown for which the permittee chooses to demonstrate compliance for an affected source, the permittee shall comply with 40 CFR 63.1517(b)(19)(i) or (ii). [40 CFR 63.1517(b)(19)]
- 1) To demonstrate compliance based on a feed/charge rate of zero, a flux rate of zero and the use of electricity, propane or natural gas as the sole sources of heating or the lack of heating, the permittee must submit a semiannual report in accordance with 40 CFR 63.1516(b)(2)(vii) or maintain the following records: [40 CFR 63.1517(b)(19)(i)]
 - (A) The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(i)(A)]
 - (B) The quantities of feed/charge and flux introduced during each startup and shutdown; and [40 CFR 63.1517(b)(19)(i)(B)]
 - (C) The types of fuel used to heat the unit, or that no fuel was used, during startup and shutdown; or [40 CFR 63.1517(b)(19)(i)(C)]
 - 2) To demonstrate compliance based on performance tests, the permittee must maintain the following records: [40 CFR 63.1517(b)(19)(ii)]
 - (A) The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(ii)(A)]
 - (B) The measured emissions in lb/hr or µg/hr or ng/hr; [40 CFR 63.1517(b)(19)(ii)(B)]
 - (C) The measured feed/charge rate in tons/hr or Mg/hr from the most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data is available; and [40 CFR 63.1517(b)(19)(ii)(C)]
 - (D) An explanation to support that such conditions are considered representative startup and shutdown operations. [40 CFR 63.1517(b)(19)(ii)(D)]
- c. The permittee shall maintain records of any time that EU 029 was not operated according to the GCOP plan required by **1. Operating Limitations (i)** with a description of the situation and actions taken to remedy the issue. [401 KAR 51:017]
- d. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
- i. The monthly and 12-month rolling scrap processed in tons;
 - ii. The monthly average process weight rate in tons/hr;
 - iii. The monthly hours of operation;
 - iv. The hourly PM emission rate, as calculated for **2. Emission Limitations**, in lb/hr;
 - v. The monthly and 12-month rolling emissions of PM, PM₁₀, PM_{2.5}, CO, NO_x, VOC, and CO_{2e} in tons;
 - vi. The monthly and 12-month rolling natural gas usage in MMscf;
 - vii. The GCOP Plan as well as any revisions;
 - viii. A log of the qualitative visual observations made as specified in **4. Specific Monitoring Requirements (o)** including the date, time, initials of observer, whether

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

any emissions were observed (yes/no), and any U.S. EPA Reference Method 9 readings taken.

- e. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

- a. The permittee shall submit the OM&M plan within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan shall be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b) and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(b)]
- b. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]
- i. If the Division determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of 40 CFR 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.
- ii. If the permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the permittee submits a description of the changes and a revised plan incorporating them to the Division.
- c. If the permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR 63.1510(j)(5) and 40 CFR 63.1510(v), the permittee may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in 40 CFR 63.1510(w)(1) through (6). [40 CFR 63.1510(w)]
- i. The Administrator will not approve averaging periods other than those specified in 40 CFR 63.1510. [40 CFR 63.1510(w)(1)]
- ii. The permittee must continue to use the original monitoring requirement until necessary data are submitted and approval is received to use another monitoring procedure. [40 CFR 63.1510(w)(2)]
- iii. The permittee shall submit the application for approval of alternate monitoring methods no later than the notification of the performance test. The application shall contain the information specified in 40 CFR 63.1510(w)(3)(i) through (iii): [40 CFR 63.1510(w)(3)]
- 1) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach; [40 CFR 63.1510(w)(3)(i)]
- 2) A description of the proposed alternative monitoring requirements, including the operating parameters to be monitored, the monitoring approach and technique, and how the limit is to be calculated; and [40 CFR 63.1510(w)(3)(ii)]

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

- 3) Data and information documenting that the alternative monitoring requirement(s) would provide equivalent or better assurance of compliance with the relevant emission standard(s). [40 CFR 63.1510(w)(3)(iii)]
 - iv. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard(s). Before disapproving any alternate monitoring application, the Administrator will provide: [40 CFR 63.1510(w)(4)]
 - 1) Notice of the information and findings upon which the intended disapproval is based; and [40 CFR 63.1510(w)(4)(i)]
 - 2) Notice of opportunity for the permittee to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the permittee to provide additional supporting information. [40 CFR 63.1510(w)(4)(ii)]
 - v. The permittee is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application nor the Administrator's failure to approve or disapprove the application relieves the permittee of the responsibility to comply with any provisions of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(w)(5)]
 - vi. The Administrator may decide at any time, on a case-by-case basis, that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(w)(6)]
- d. The permittee must submit a notification of compliance status report within 90 days after conducting the initial performance test required by 40 CFR 63.1511(b). The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include: [40 CFR 63.1512(q), 40 CFR 63.1515(r), 40 CFR 63.1512(s), 40 CFR 63.1515(b)]
- i. All information required in 40 CFR 63.9(h). The permittee must provide a complete performance test report for each affected source. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests). [40 CFR 63.1515(b)(1)]
 - ii. The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system). [40 CFR 63.1515(b)(2)]
 - iii. Unit labeling as described in 40 CFR 63.1506(b), including process type or furnace classification and operating requirements. [40 CFR 63.1515(b)(3)]
 - iv. The compliant operating parameter value or range established for each affected source with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, total reactive fluorine flux injection rate for uncontrolled group 1 furnaces, afterburner operating temperature, fabric filter inlet temperature), including the operating cycle or time period used in the performance test. [40 CFR 63.1515(b)(4)]
 - v. Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in 40 CFR 63.1506(c). [40 CFR 63.1515(b)(5)]

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

- vi. If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems as specified in 40 CFR 63.1510(f). [40 CFR 63.1515(b)(6)]
 - vii. Manufacturer's specification or analysis documenting the design residence time of no less than 1 second for each afterburner used to control emissions from a scrap dryer/delacquering kiln/decoating kiln subject to alternative emission standards in 40 CFR 63.1505(e). [40 CFR 63.1515(b)(7)]
 - viii. The OM&M plan. [40 CFR 63.1515(b)(9)]
- e. The permittee must submit semiannual reports according to the requirements in 40 CFR 63.10(e)(3) and **Section F.5**. Except, the permittee must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in 40 CFR 63.10(e)(3)(v). When no deviations of parameters have occurred, the permittee must submit a report stating that no excess emissions occurred during the reporting period. A report must be submitted if any of the following conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]
- i. 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)]
 - ii. 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)]
 - iii. 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)]
 - iv. Any affected source was not operated according to the requirements of 40 CFR Part 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
- f. Each semiannual report shall include the following certification, as applicable: [40 CFR 63.1516(b)(2)]
- i. 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)]
- g. The permittee must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested. [40 CFR 63.1516(b)(3)]
- i. 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)]

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

- h. 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)]
- i. For the purpose of annual certifications of compliance required by 40 CFR 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)]
- j. 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)]
- k. 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)]
- l. The permittee shall include, in the semi-annual report, any time that EU 029 was not operated according to the GCOP plan required by **1. Operating Limitations (i)** with a description of the situation and actions taken to remedy the issue. Refer to **5. Specific Recordkeeping Requirements (c)**. [401 KAR 51:017]
- m. The permittee shall submit certification that the design elements proposed as BACT for EU 029 have been implemented in the final construction. Any deviations from the design elements proposed in the application shall be analyzed for changes in air emissions profile. Design changes and emission analysis shall be submitted in a report to the Division prior to construction of the changed element. Any changes shall also be incorporated into the GCOP plan. [401 KAR 51:017]
- n. Refer to **Section F** for general reporting requirements.

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

7. Specific Control Equipment Operating Conditions:

- a. The control devices associated with EU 029 shall be properly maintained, used in conjunction with operation of the underlying emission units, and operated consistent with the manufacturer's specifications at all times. [401 KAR 52:020, Section 10]
- b. The permittee shall install, operate, and maintain an in-process afterburner capable of controlling CO and VOC to the emission rates in **2. Emission Limitations**. The permittee shall verify this with the testing required in **3. Testing Requirements**. [401 KAR 51:017]
- c. The permittee shall design, install, operate, and maintain a baghouse to control particulate emissions from EU 029. The baghouse must be designed to achieve an exit grain loading value of 0.002 gr/dscf. [401 KAR 51:017]
- d. Refer to **Section E**.

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

Emission Group 7 – Group 1 Furnaces and In-line Degasser

Emission Unit 030 (EU 030)	Sidewell Melting Furnace #1
Emission Unit 031 (EU 031)	Sidewell Melting Furnace #2
Emission Unit 032 (EU 032)	Novelis Dual Chamber (NDC) Recycling Furnace

Description: Each furnace receives decoated aluminum scrap directly from the decoater via a scrap conveyer and supports solid reactive fluxing. Charge materials can be automatically or manually fed to the sidewell of each furnace. These emission units are heated using natural gas and are new Group 1 furnaces under 40 CFR 63, Subpart RRR.

Emission Unit 034 (EU 034) Holding Furnace #1

Description: Molten aluminum produced in the melting furnaces is troughed to the holding furnace for further alloying and metal purification activities prior to casting. Once completed, molten metal is transported from the holding furnace through an in-line degasser for fluxing prior to casting. This emission unit is heated using natural gas and is a new Group 1 furnace under 40 CFR 63, Subpart RRR.

Emission Unit 036 (EU 036) In-Line Degasser

Description: Chlorine gas is used as a final metal conditioning step prior to casting. This emission unit is a new In-Line Fluxer under 40 CFR 63, Subpart RRR.

Emission Unit	Unit Name	Maximum Capacity (ton/hr)	Maximum Burner Heat Input Capacity (MMBtu/hr)	Control Device	Construction Commenced
030	Sidewell Melting Furnace #1	14.3	38.0	Lime-Injected Hot Baghouse #2	2022
031	Sidewell Melting Furnace #2	14.3	38.0	Lime-Injected Hot Baghouse #2	2022
032	NDC Recycling Furnace	16.5	59.3	Lime-Injected Hot Baghouse #3	2022
034	Holding Furnace #1	41.9	30.0	Lime-Injected Hot Baghouse #4	2022
036	In-Line Degasser	41.9	N/A	Lime-Injected Hot Baghouse #4	2022

APPLICABLE REGULATIONS:

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

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*

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**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 1 furnace and in-line fluxer 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, in-line fluxer). [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.* The permittee must: [40 CFR 63.1506(c)]
 - i. Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, see 40 CFR 63.14); [40 CFR 63.1506(c)(1)]
 - ii. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to the baghouse; 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 must: [40 CFR 63.1506(d)]
 - i. Except as provided in 40 CFR 63.1506(d)(3), install and operate a device that measures and records or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; and [40 CFR 63.1506(d)(1)]
 - ii. Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan. [40 CFR 63.1506(d)(2)]
 - iii. The permittee may choose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit, provided that: [40 CFR 63.1506(d)(3)]
 - 1) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and [40 CFR 63.1506(d)(3)(i)]
 - 2) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight. [40 CFR 63.1506(d)(3)(ii)]

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

- e. *In-line fluxer*. For each in-line fluxer with emissions controlled by a lime-injected fabric filter, the permittee must: [40 CFR 63.1506(k)]
 - i. If a bag leak detection system is used to meet the monitoring requirements in 40 CFR 63.1510, [40 CFR 63.1506(k)(1)]
 - 1) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete any necessary corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(k)(1)(i)]
 - 2) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the permittee to initiate corrective action. [40 CFR 63.1506(k)(1)(ii)]
 - ii. If a continuous opacity monitoring system is used to meet the monitoring requirements in 40 CFR 63.1510, initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(k)(2)]
 - iii. For a continuous 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(k)(3)]
 - 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(k)(4)]
- f. *Group 1 furnace with add-on air pollution control devices*. The permittee 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 shall: [40 CFR 63.1506(m)(1)]
 - 1) Initiate corrective action within 1 hour of a bag leak detection system alarm. [40 CFR 63.1506(m)(1)(i)]
 - 2) Complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(m)(1)(ii)]
 - 3) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the permittee to initiate corrective action. [40 CFR 63.1506(m)(1)(iii)]
 - ii. If a continuous opacity monitoring system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must: [40 CFR 63.1506(m)(2)]
 - 1) Initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity; and [40 CFR 63.1506(m)(2)(i)]

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

- 2) Complete the corrective action procedures in accordance with the OM&M plan. [40 CFR 63.1506(m)(2)(ii)]
- iii. Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F). [40 CFR 63.1506(m)(3)]
- iv. For a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at or above the level established during the performance test. [40 CFR 63.1506(m)(4)]
- v. Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test. [40 CFR 63.1506(m)(5)]
- vi. Operate each sidewell furnace such that: [40 CFR 63.1506(m)(6)]
 - 1) The level of molten metal remains above the top of the passage between the sidewell and hearth during reactive flux injection, unless emissions from both the sidewell and the hearth are included in demonstrating compliance with all applicable emission limits. [40 CFR 63.1506(m)(6)(i)]
 - 2) Reactive flux is added only in the sidewell, unless emissions from both the sidewell and the hearth are included in demonstrating compliance with all applicable emission limits. [40 CFR 63.1506(m)(6)(ii)]
- vii. 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 shall be restarted before feed/charge, flux or alloying materials are added to the furnace. [40 CFR 63.1506(m)(7)]
- g. *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 shall initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]
- h. The permittee shall prepare and implement for each emission unit, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting**

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

Requirements (b). Each plan shall contain the following information: [40 CFR 63.1510(b)]

- i. Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device. [40 CFR 63.1510(b)(1)]
 - ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]
 - iii. Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in 40 CFR 63.1505. [40 CFR 63.1510(b)(3)]
 - iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
 - 1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
 - 2) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in 40 CFR 63, Subpart A. [40 CFR 63.1510(b)(4)(ii)]
 - v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]
 - vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
 - 1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]
 - 2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]
 - vii. A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. [40 CFR 63.1510(b)(7)]
- i. *Site-specific requirements for secondary aluminum processing units (SAPU).* [40 CFR 63.1510(s)]
- i. Within the OM&M plan prepared in accordance with 40 CFR 63.1510(b), the permittee must include the following information: [40 CFR 63.1510(s)(1)]
 - 1) The identification of each emission unit in the SAPU; [40 CFR 63.1510(s)(1)(i)]
 - 2) The specific control technology or pollution prevention measure to be used for each emission unit in the SAPU and the date of its installation or application; [40 CFR 63.1510(s)(1)(ii)]
 - 3) The emission limit calculated for each SAPU and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit; [40 CFR 63.1510(s)(1)(iii)]

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

- 4) Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of 40 CFR 63, Subpart RRR; and [40 CFR 63.1510(s)(1)(iv)]
- 5) The monitoring requirements applicable to each emission unit in a SAPU and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t). [40 CFR 63.1510(s)(1)(v)]
- ii. The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions: [40 CFR 63.1510(s)(2)]
 - 1) Any averaging among emissions of differing pollutants; [40 CFR 63.1510(s)(2)(i)]
 - 2) The inclusion of any affected sources other than emission units in a SAPU; [40 CFR 63.1510(s)(2)(ii)]
 - 3) The inclusion of any emission unit while it is shutdown; or [40 CFR 63.1510(s)(2)(iii)]
 - 4) 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 shall 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)]
- j. Prior to changing furnace classifications to those not already authorized in **Section B**, the permittee shall submit a permit application to incorporate the applicable standards from 40 CFR 63, Subpart RRR. [401 KAR 52:020, Section 7]
- k. The BACT determination for Greenhouse Gases (CO₂e) requires the facility to meet the following design and operational requirements: [401 KAR 51:017]
 - i. For EU 030, EU 031, and EU 032:
 - 1) Using regenerative burners to achieve the maximum combustion air preheat temperatures
 - 2) Installing, operating, and maintaining regenerative burners in accordance with manufacturer's specifications to achieve consistent air preheat temperatures resulting in high thermal efficiency
 - 3) Incorporating the ability to receive hot shredded aluminum scrap from the Decoater
 - 4) Using molten metal vortexing when charging shredded scrap in the sidewell to ensure rapid and efficient mixing of incoming scrap stream with the molten metal bath
 - 5) Installing and maintaining an insulation-lined door with adequate door seals to prevent cold air infiltration
 - 6) Installing and maintaining a limit switch on door to drive burners to low fire and to open flue damper when the door is raised
 - 7) Utilizing a molten metal circulation well to avoid bath temperature stratification and to decrease the impact of introducing cold charge to the metal bath
 - 8) Installing and maintaining seals and modern insulation media to minimize heat losses from the furnace hearth, upper and lower sidewalls, doors, roof, and any openings around the burners or other equipment traversing through the furnace shell
 - ii. For EU 034:

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

- 1) Using high velocity cold air burners.
 - 2) Installing and maintaining an insulation-lined door with adequate door seals to prevent cold air infiltration.
 - 3) Installing and maintaining a limit switch on door to drive burners to low fire and to open flue damper when the door is raised.
 - 4) Installing and maintaining seals and modern insulation media to minimize heat losses from the furnace hearth, upper and lower sidewalls, doors, roof, and any openings around the burners or other equipment traversing through the furnace shell.
 - 5) Installing, operating, and maintaining a combustion system that includes air to fuel ratio control for improved fuel efficiency.
 - 6) Implementing burner temperature control to achieve optimum temperature uniformity.
 - 7) Utilize long flame burners for efficient radiant energy transfer.
1. The permittee shall prepare and maintain, within 90 days of startup, a good combustion and operation practices (GCOP) plan that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing PM, PM₁₀, PM_{2.5}, NO_x, CO, VOC, and GHG emissions. Any revisions requested by the Division shall be made and the revisions shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]
 - i. A list of combustion optimization practices and a means of verifying the practices have occurred.
 - ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred.
 - iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.
 - m. The permittee shall install low-NO_x burners capable of meeting the following standards: [401 KAR 51:017]
 - i. For EU 030: 0.109 lb/MMBtu;
 - ii. For EU 031: 0.109 lb/MMBtu;
 - iii. For EU 032: 0.163 lb/MMBtu;
 - iv. For EU 034: 0.063 lb/MMBtu.
 - n. The permittee shall limit the natural gas usage in EU 032 to 416.4 MMscf/yr. [401 KAR 51:017]
 - o. The permittee shall limit the operation of each emission unit as necessary to comply with the emission standards in **2. Emission Limitations**. [401 KAR 51:017]

Compliance Demonstration Method:

- 1) For **1. Operating Limitations** (a) through (j), the permittee shall demonstrate

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

- compliance by meeting the requirements in **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.
- 2) For **1. Operating Limitations** (k) and (l), the permittee shall demonstrate compliance as follows:
- A. The facility construction shall be completed in accordance with the approved GCOP plan. Refer to **6. Specific Reporting Requirements** (n).
 - B. Prepare, maintain, and implement the GCOP plan. Refer to **5. Specific Recordkeeping Requirements** (d) and **6. Specific Reporting Requirements** (m).
 - C. The permittee shall perform testing for PM, PM₁₀, PM_{2.5}, NO_x, CO, and VOC. Refer to **3. Testing Requirements** (p).
- 3) For **1. Operating Limitations** (n), the permittee shall demonstrate compliance by meeting the requirements in **4. Specific Monitoring Requirements** (l)(vi) and **5. Specific Recordkeeping Requirements** (d)(vi).
- 2. Emission Limitations:**
- a. *Group 1 furnace.* The permittee has a choice to limit emissions from the furnaces in Group 7 on an individual basis or as part of a Secondary Aluminum Processing Unit (SAPU), included in the OM&M Plan. On an individual basis, the permittee shall not allow the emissions from the furnaces in Group 7 to exceed the following: [40 CFR 63.1505(i), (k)]
 - i. 0.20 kg of PM per Mg (0.40 lb of PM per ton) of feed/charge. [40 CFR 63.1505(i)(1)]
 - ii. 15 µg D/F TEQ per Mg (2.1×10^{-4} gr D/F TEQ per ton) of feed/charge. [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 shall not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option. [40 CFR 63.1505(i)(5)]
 - v. The permittee may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of feed/charge. [40 CFR 63.1505(i)(6)]
 - vi. For EU 030 and EU 031, if the permittee conducts reactive fluxing (except for cover flux) in the hearth, or conducts reactive fluxing in the sidewall at times when the level of molten metal falls below the top of the passage between the sidewall and the hearth, then 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 sidewall and the hearth. [40 CFR 63.1505(i)(7)]
 - b. *In-line fluxer.* The permittee has a choice to limit emissions from the in-line fluxer in Group 7 on an individual basis or as part of a Secondary Aluminum Processing Unit (SAPU), included in the OM&M Plan. On an individual basis, the permittee shall not allow the emissions from the in-line fluxer in Group 7 to exceed the following: [40 CFR 63.1505(j)]
 - i. 0.02 kg of HCl per Mg (0.04 lb of HCl per ton) of feed/charge; [40 CFR 63.1505(j)(1)]
 - ii. 0.005 kg of PM per Mg (0.01 lb of PM per ton) of feed/charge. [40 CFR 63.1505(j)(2)]
 - iii. The permittee must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control

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

device used to control emissions from the in-line fluxer, if a COM is chosen as the monitoring option. [40 CFR 63.1505(j)(4)]

- iv. The permittee may determine the emission standards for a SAPU by applying the in-line fluxer limits on the basis of the aluminum production weight in each in-line fluxer, rather than on the basis of feed/charge. [40 CFR 63.1505(j)(5)]
- c. *Secondary aluminum processing units.* If the permittee cannot or chooses not to demonstrate compliance with the applicable individual emission limitations under 40 CFR 63, Subpart RRR, the permittee shall comply with the emission limits calculated using the equations for PM, HCl, and D/F in 40 CFR 63.1505(k)(1) through (3) for each secondary aluminum processing unit (SAPU) at the secondary aluminum production facility. [40 CFR 63.1505(k)]
- d. The permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of PM, HCl, or D/F in excess of: [40 CFR 63.1505(k)(1) – (3)]

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

Where:

$L_{tiPM,HCl,D/F}$ = the PM, HCl, or D/F emission limit for individual emission unit i in paragraph 40 CFR 63.1505(i)(1) and (2) for a group 1 furnace or in 40 CFR 63.1505(j)(1) and (2) for an in-line fluxer;

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

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

NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM, HCl, or D/F limit. Clean charge furnaces cannot be included in the D/F calculation since they are not subject to the D/F limit.

- e. The permittee shall not allow the emissions of PM, PM₁₀, and PM_{2.5} to exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for PM (filterable)	BACT for PM ₁₀	BACT for PM _{2.5}
030	Sidewell Melting Furnace #1	0.077 lb/ton; 4.86 ton/yr	0.18 lb/ton; 11.61 ton/yr	0.16 lb/ton; 8.09 ton/yr
031	Sidewell Melting Furnace #2	0.077 lb/ton; 4.86 ton/yr	0.18 lb/ton; 11.61 ton/yr	0.16 lb/ton; 8.09 ton/yr
032	NDC Recycling Furnace	0.11 lb/ton; 8.08 ton/yr	0.21 lb/ton; 15.15 ton/yr	0.17 lb/ton; 10.08 ton/yr
034	Holding Furnace #1	0.036 lb/ton; 6.66 ton/yr	0.044 lb/ton; 8.05 ton/yr	0.042 lb/ton; 7.65 ton/yr

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

Emission Point	Description	BACT for PM (filterable)	BACT for PM₁₀	BACT for PM_{2.5}
036	In-Line Degasser	0.010 lb/ton; 1.83 ton/yr	0.005 lb/ton; 0.97 ton/yr	0.002 lb/ton; 0.37 ton/yr

- f. The permittee shall not allow the emissions of PM_{2.5} to exceed the block 24-hr average limits in the following table: [401 KAR 51:017]

Emission Point	Description	24-hr average for PM_{2.5}
030	Sidewell Melting Furnace #1	1.848 lb/hr
031	Sidewell Melting Furnace #2	1.848 lb/hr
032	NDC Recycling Furnace	2.302 lb/hr

- g. The permittee shall not allow the emissions of CO, NO_x, VOC, and GHG to exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for CO	BACT for NO_x	BACT for VOC	BACT for GHG (CO_{2e})
030	Sidewell Melting Furnace #1	0.44 lb/ton; 27.79 tons/yr	0.45 lb/ton; 28.23 tons/yr	0.23 lb/ton; 14.72 tons/yr	19,490 tpy
031	Sidewell Melting Furnace #2	0.44 lb/ton; 27.79 tons/yr	0.45 lb/ton; 28.23 tons/yr	0.23 lb/ton; 14.72 tons/yr	19,490 tpy
032	NDC Recycling Furnace	0.52 lb/ton; 33.42 tons/yr	0.75 lb/ton; 45.64 tons/yr	0.24 lb/ton; 17.07 tons/yr	46,454 tpy
034	Holding Furnace #1	0.060 lb/ton; 11.04 tons/yr	0.045 lb/ton; 8.21 tons/yr	0.031 lb/ton; 5.69 tons/yr	15,387 tpy

- h. 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)]
- i. 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 of ≤ 0.5 tons/hour: 2.34 lbs/hr
 - ii. For process weight rates of ≤ 30 tons/hour: $E = 3.59P^{0.62}$
- 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:

- 1) For **2. Emission Limitations (a) and (b)**, the permittee shall demonstrate compliance by meeting the requirements in **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.
- 2) *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 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)]
 - A. Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the feed/charge weight information required in 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)]
 - B. Multiply the total feed/charge weight to the emission unit, or the weight of aluminum produced by the emission unit, for each emission unit for the 24-hour period by the emission rate (in lb/ton of feed/charge) for that emission unit (as determined during the performance test) to provide emissions for each emission unit for the 24-hour period, in pounds. [40 CFR 63.1510(t)(2)]
 - i. Except as provided in 40 CFR 63.1510(t)(2)(iii), if the permittee has not conducted performance tests for HCl or for HCl for an in-line fluxer, in accordance with the provisions of 40 CFR 63.1512(d)(3) or (h)(2), the calculation required in 40 CFR 63.1510(t)(4) to determine SAPU-wide HCl emissions shall be made under the assumption that all chlorine contained in reactive flux added to the emission unit is emitted as HCl. [40 CFR 63.1510(t)(2)(ii)]
 - C. Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU, or the weight of aluminum produced by the SAPU over the 24-hour period to provide the daily emission rate for the SAPU. [40 CFR 63.1510(t)(3)]
 - D. 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, and D/F emission rate for the secondary aluminum processing unit for the 24-hour period;

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

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

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

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

- E. Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3. 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)(5)]
- 3) *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. [40 CFR 63.1510(u)]
- 4) For **2. Emission Limitations (e) and (g)** the permittee shall demonstrate compliance by meeting the requirements in **1. Operating Limitations (k-l)**, **3. Testing Requirements (v-w)**, **4. Specific Monitoring Requirements (l)**, and **5. Specific Recordkeeping Requirements (d)**.
- 5) For **2. Emission Limitations (f)** the permittee shall demonstrate compliance each day by comparing the allowable rate to the actual rate calculated using the following equation:

$$E_{PM2.5} = \frac{PR_j \times EF_{PM2.5}}{h_j} \times \left(1 - \frac{CE}{100}\right)$$

Where:

$E_{PM2.5}$ = the actual 24-hour average PM_{2.5} emission rate (lb/hr);

j = calendar day;

PR_j = the actual tons of aluminum for day j (tons/hr);

$EF_{PM2.5}$ = the overall uncontrolled PM_{2.5} emission factor approved by the Division or established during the most recent performance test (lb/ton);

h_j = the actual total hours of operation for day j (hrs/day); and

CE = the overall control efficiency (%).

- 6) For **2. Emission Limitations (h)**, compliance is assumed when complying with **2. Emission Limitations (a) and (b)**. However, if a COM is not chosen as the monitoring option, compliance with **2. Emission Limitations (h)** must be demonstrated by complying with **4. Specific Monitoring Requirements (n)** and **5. Specific Recordkeeping Requirements (d)**.
- 7) For **2. Emission Limitations (i)**, the permittee shall demonstrate compliance each month by comparing the allowable rate to the actual rate calculated using the following equation:

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

Where:

i = month;

E_{PMi} = the actual average hourly particulate emissions rate for month i (lb/hr);

P_i = the actual specific operating parameter for month i (units/month);

EF_{PM} = the overall uncontrolled KYEIS particulate emission factor (lb/unit);

h_i = the actual total hours of operation for month i (hrs/month); and

CE = the overall control efficiency (%).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**3. Testing Requirements:**

- a. Prior to conducting any performance test required by 40 CFR 63, Subpart RRR, the permittee must prepare a site-specific test plan which satisfies all of the 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. Following approval of the site-specific test plan, the permittee shall demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in 40 CFR 63.1515(b). The permittee must conduct the initial performance tests within 180 days after startup. The permittee shall 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 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)]
 - 1) 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)]
 - 2) 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

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

- complete. All traverse points as required by Method 1 of 40 CFR 60, Appendix A, must be sampled at least once during each test run; [40 CFR 63.1511(b)(3)(ii)]
- 3) 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(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 shall 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 shall measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system. [40 CFR 63.1511(c)(9)]
- d. The permittee may use alternative test methods as provided in 40 CFR 63.1511(d)(1) through (3): [40 CFR 63.1511(d)]
- i. In lieu of conducting the annual flow rate measurements using Methods 1 and 2, the permittee may use Method 204 in 40 CFR 51, Appendix M, to conduct annual verification of a permanent total enclosure for the affected source/emission unit. [40 CFR 63.1511(d)(2)]
- ii. The permittee may use an alternative test method approved by the Administrator. [40 CFR 63.1511(d)(3)]
- e. The permittee must conduct a performance test every 5 years following the initial performance test. [40 CFR 63.1511(e)]

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

- f. The permittee must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the permittee must use the appropriate procedures in 40 CFR 63.1511 and submit the information required by 40 CFR 63.1515(b)(4) in the notification of compliance status report. The permittee may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the Division: [40 CFR 63.1511(g)]
- i. The complete emission test report(s) used as the basis of the parameter(s) is submitted. [40 CFR 63.1511(g)(1)]
 - ii. The same test methods and procedures as required by 40 CFR 63, Subpart RRR were used in the test. [40 CFR 63.1511(g)(2)]
 - iii. The permittee certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report. [40 CFR 63.1511(g)(3)]
 - iv. All process and control equipment operating parameters required to be monitored were monitored as required in 40 CFR 63, Subpart RRR and documented in the test report. [40 CFR 63.1511(g)(4)]
 - v. If the permittee wants to conduct a new performance test and establish different operating parameter values, a revised site specific test plan must be submitted and the permittee shall 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, the requirements in 40 CFR 63.1511(g)(1) through (4) must be met. [40 CFR 63.1511(g)(5)]
- g. When group 1 furnaces and/or in-line fluxers are included in a single new SAPU, and the emissions from more than one emission unit within that new SAPU are manifolded to a single control device, compliance for all units within the SAPU is demonstrated if the total measured emissions from all controlled and uncontrolled units in the SAPU do not exceed the emission limits calculated for that SAPU based on the applicable equation in 40 CFR 63.1505(k). [40 CFR 63.1511(h)]
- h. 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 new SAPU, but whose emissions are manifolded to a single control device. Any such performance testing of commonly-ducted units must satisfy the following basic requirements: [40 CFR 63.1511(i)]
- i. All testing must be designed to verify that each affected source or emission unit individually satisfies all emission requirements applicable to that affected source or emission unit; [40 CFR 63.1511(i)(1)]
 - ii. All emissions of pollutants subject to a standard must be tested at the outlet from each individual affected source or emission unit while operating under the highest load or capacity reasonably expected to occur, and prior to the point that the emissions are manifolded together with emissions from other affected sources or emission units; [40 CFR 63.1511(i)(2)]

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

- iii. The combined emissions from all affected sources and emission units which are manifolded to a single emission control device must be tested at the outlet of the emission control device; [40 CFR 63.1511(i)(3)]
 - iv. All tests at the outlet of the emission control device must be conducted with all affected sources and emission units whose emissions are manifolded to the control device operating simultaneously under the highest load or capacity reasonably expected to occur; and [40 CFR 63.1511(i)(4)]
 - v. For purposes of demonstrating compliance of a commonly-ducted unit with any emission limit for a particular type of pollutant, the emissions of that pollutant by the individual unit shall be presumed to be controlled by the same percentage as total emissions of that pollutant from all commonly-ducted units are controlled at the outlet of the emission control device. [40 CFR 63.1511(i)(5)]
- i. *Group 1 furnace with add-on air pollution control devices.* [40 CFR 63.1512(d)]
 - i. The permittee must conduct performance tests to measure emissions of PM and D/F at the outlet of the control devices and emissions of HCl at the outlet (for the emission limit) or at the inlet and outlet (for the percent reduction standard) of the lime-injected fabric filter. [40 CFR 63.1512(d)(1)]
 - ii. The permittee may choose to determine the rate of reactive flux addition to the group 1 furnace during the test and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added is emitted. Under these circumstances, the permittee is not required to conduct an emission test for HCl. [40 CFR 63.1512(d)(3)]
 - iii. For the sidewell group 1 furnaces, if the permittee conducts reactive fluxing (except for cover flux) in the hearth, or 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 shall conduct the performance tests required by 40 CFR 63.1512(d)(1) to measure emissions from both the sidewell and the hearth. [40 CFR 63.1512(d)(4)]
- j. *In-line fluxer.* [40 CFR 63.1512(h)]
 - i. The permittee must conduct a performance test to measure emissions of HCl and PM or otherwise demonstrate compliance in accordance with 40 CFR 63.1512(h)(2). If the in-line fluxer is equipped with an add-on control device, the emissions must be measured at the outlet of the control device. [40 CFR 63.1512(h)(1)]
 - ii. The permittee may choose to limit the rate at which reactive flux is added to an in-line fluxer and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all chlorine in the reactive flux added to the in-line fluxer is emitted as HCl. Under these circumstances, the permittee is not required to conduct an emission test for HCl. If the permittee of any in-line flux box that has no ventilation ductwork manifolded to any outlet or emission control device chooses to demonstrate compliance with the emission limits for HCl by limiting use of reactive flux and assuming that all chlorine in the flux is emitted as HCl, compliance with the HCl limit shall also constitute compliance with the emission limit for PM and no separate emission test for PM is required. In this case, the permittee of the unvented in-line flux box must use the

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

- maximum permissible PM emission rate for the in-line flux boxes when determining the total emissions for any SAPU which includes the flux box. [40 CFR 63.1512(h)(2)]
- k. *Secondary aluminum processing unit.* The permittee must conduct performance tests as described in 40 CFR 63.1512(j)(1) through (3). The results of the performance tests are used to establish emission rates in lb/ton of feed/charge for PM 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)]
 - 1) Emissions of HCl (for the emission limit); or [40 CFR 63.1512(j)(2)(i)]
 - 2) The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard). [40 CFR 63.1512(j)(2)(ii)]
 - ii. Each in-line fluxer to measure emissions of PM and HCl. [40 CFR 63.1512(j)(3)]
- l. 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 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)]
- m. If the permittee uses a continuous opacity monitoring system, the permittee must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in 40 CFR 60, Appendix B. Following the performance evaluation, the permittee must measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test. [40 CFR 63.1512(l)]
- n. The permittee of a group 1 furnace using a lime-injected fabric filter must use the following procedures to establish an operating parameter value or range for the baghouse inlet gas temperature: [40 CFR 63.1512(n)]
- i. Continuously measure and record the temperature at the inlet to the lime-injected baghouse 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)]
- o. The permittee must use the following 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-

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

- 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 following equation. [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 or potassium fluoride is used, the permittee must derive the appropriate proportion factor subject to approval by the Division. [40 CFR 63.1512(o)(5)]
- p. The permittee must use the following procedures during the HCl and D/F tests to establish an operating parameter value for the lime feeder setting for each operating cycle or time period used in the performance test. [40 CFR 63.1512(p)]
- i. For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and [40 CFR 63.1512(p)(1)]
 - ii. Record the feeder setting and lime injection rate for the 3 test runs. If the feed rate setting and lime injection rates vary during the runs, determine and record the average feed rate and lime injection rate from the 3 runs. [40 CFR 63.1512(p)(2)]
- q. To determine compliance with the emission limitations in **2. Emission Limitations** (a), above, the following equations shall be used. [40 CFR 60.1513(b) & (c)]
- i. 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);

K_1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and

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

- ii. To determine compliance with an emission limit for D/F: [40 CFR 63.1513(b)(2)]

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

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

Where:

E = Emission rate of D/F, $\mu\text{g}/\text{Mg}$ (gr/ton) of feed;

C = Concentration of D/F, $\mu\text{g}/\text{dscm}$ (gr/dscf);

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

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

- iii. 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).

- r. To convert D/F measurements to TEQ units, the permittee shall use the procedures and equations in “Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update”, incorporated by reference see 40 CFR 63.14. [40 CFR 63.1513(d)]
- s. *Secondary aluminum processing unit.* The permittee must use the following equations to compute the mass-weighted PM, HCl, and D/F emissions for a secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit ($E_{CPM,HCl,D/F}$) 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.

- t. 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) and that each existing in-line fluxer is in compliance with the emission limits for a new in-line fluxer in 40 CFR 63.1505(j). [40 CFR 63.1513(e)(4)]

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

- u. 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)]
 - i. For periods of startup and shutdown, records establishing a feed/charge rate of zero, a flux rate of zero, and that the affected source or emission unit was either heated with electricity, propane or natural gas as the sole sources of heat or was not heated, may be used to demonstrate compliance with the emission limit, or [40 CFR 63.1513(f)(1)]
 - ii. For periods of startup and shutdown, divide the measured emissions in lb/hr or $\mu\text{g/hr}$ 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 is available. [40 CFR 63.1513(f)(2)]
- v. Within 60 days after achieving the maximum production rate but no later than 180 days after initial startup, and every 5 years thereafter, the permittee shall perform stack testing for NO_x, VOC and CO emissions from each emission unit in Group 7, excluding EU 036, using the following methods: [401 KAR 51:017]
 - i. U.S. EPA Method 7E for NO_x;
 - ii. U.S. EPA Method 25A for VOC; and
 - iii. U.S. EPA Method 10 for CO;
 - iv. An alternate method as approved by the Division;
 - v. This testing shall establish an emission factor for each unit for NO_x, VOC, and CO in lb/ton of aluminum and demonstrate compliance with the emission limits in **2. Emission Limitations (g).**
- w. Within 60 days after achieving the maximum production rate but no later than 180 days after initial startup, and every 5 years thereafter, the permittee shall perform stack testing for PM, PM₁₀, and PM_{2.5} emissions from each emission unit in Group 7, using 40 CFR 51, Appendix M, Method 201A/202, and 40 CFR 60, Appendix A, Method 5 (or an alternate method as approved by the Division) on both the inlet and outlet of the baghouse. [401 KAR 51:017]
 - i. Prior to the test, the permittee shall establish a pressure drop range and volumetric flowrate range in accordance with the manufacturer's written instructions and operate the control device within these ranges during the test.
 - ii. The permittee shall monitor process weight rate, fan amps, and volumetric flow rate during the test.
 - iii. This testing shall establish an inlet and outlet emission factor for PM, PM₁₀, and PM_{2.5} in lb/ton of aluminum and demonstrate compliance with the emission limits in **2. Emission Limitations (e).**

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

- x. Testing performed to satisfy the requirements of 40 CFR 63, Subpart RRR may also satisfy the requirements of **3. Testing Requirements (w)** if the permittee submits the stack test protocol to the Division such that it identifies the dual purpose of the test.
- y. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

- a. The permittee shall prepare and implement for each emission unit in Group 7, a written operation, maintenance, and monitoring (OM&M) plan. Refer to **6. Specific Reporting Requirements (a)** through **(e)**, below, for OM&M plan requirements. [40 CFR 63.1510(b)]
- b. The permittee must inspect equipment labels for each group 1 furnace and in-line fluxer 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)]
- c. The permittee must: [40 CFR 63.1510(d)]
 - i. Install, operate, and maintain a capture/collection system for each furnace in Group 7 equipped with an add-on air pollution control device; and [40 CFR 63.1510(d)(1)]
 - ii. Inspect the capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR 63.1506(c) and record the results of each inspection. [40 CFR 63.1510(d)(2)]
 - iii. Meet the requirements in **Section E**.
- d. The permittee must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the permittee may use a procedure acceptable to the Division to determine the total weight of feed/charge or aluminum production to the affected source or emission unit. [40 CFR 63.1510(e)]
 - i. The accuracy of the weight measurement device or procedure must be ± 1 percent of the weight being measured. The permittee may apply to the Division for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standard. [40 CFR 63.1510(e)(1)]
 - ii. The permittee must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. [40 CFR 63.1510(e)(2)]

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

- e. The permittee must install, calibrate, maintain, and continuously operate a bag leak detection system as required in 40 CFR 63.1510(f)(1) or a continuous opacity monitoring system as required in 40 CFR 63.1510(f)(2) on each control device in Group 7. [40 CFR 63.1510(f)]
 - i. The following requirements apply to the permittee if a bag leak detection system is used: [40 CFR 63.1510(f)(1)]
 - 1) The permittee must install and operate a bag leak detection system for each exhaust stack of a fabric filter. [40 CFR 63.1510(f)(1)(i)]
 - 2) Each bag leak detection system must be installed, calibrated, operated, and maintained according to the manufacturer's operating instructions. [40 CFR 63.1510(f)(1)(ii)]
 - 3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.1510(f)(1)(iii)]
 - 4) The bag leak detection system sensor must provide output of relative or absolute PM loadings. [40 CFR 63.1510(f)(1)(iv)]
 - 5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor. [40 CFR 63.1510(f)(1)(v)]
 - 6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. [40 CFR 63.1510(f)(1)(vi)]
 - 7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter. [40 CFR 63.1510(f)(1)(vii)]
 - 8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.1510(f)(1)(viii)]
 - 9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time. [40 CFR 63.1510(f)(1)(ix)]
 - 10) Following initial adjustment of the system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. [40 CFR 63.1510(f)(1)(x)]
 - ii. The following requirements apply to the permittee if a continuous opacity monitoring system is used: [40 CFR 63.1510(f)(2)]
 - 1) The permittee must install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack. [40 CFR 63.1510(f)(2)(i)]
 - 2) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in 40 CFR 60, Appendix B. [40 CFR 63.1510(f)(2)(ii)]

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

- f. 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)]
- g. The temperature monitoring device installed to comply with 4. **Specific Monitoring Requirements (f)** must meet each of the following performance and equipment specifications: [40 CFR 63.1510(h)(2)]
 - i. 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)]
 - ii. 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)]
 - iii. The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Division. [40 CFR 63.1510(h)(2)(iii)]
- h. The permittee must verify that lime is always free-flowing by either: [40 CFR 63.1510(i)(1)]
 - i. Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the permittee 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)]
 - ii. 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. [40 CFR 63.1510(i)(1)(ii)]
 - iii. 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)]
- i. The permittee must record the lime feeder setting once each day of operation. [40 CFR 63.1510(i)(2)]
- j. At least once per month, the permittee must verify that the lime injection rate in pounds per hour (lb/hr) is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. If the monthly check of the lime injection rate is below the 90 percent, the permittee must repair or adjust the lime injection system to restore normal operation within 45 days. The permittee may request from the Division an extension of up to an additional 45 days to demonstrate that the lime injection rate is no less than 90 percent of the lime injection rate used to demonstrate compliance

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

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)]

- k. The permittee must: [40 CFR 63.1510(j)]
 - i. Install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to each affected source or emission unit. [40 CFR 63.1510(j)(1)]
 - 1) The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test. [40 CFR 63.1510(j)(1)(i)]
 - 2) The accuracy of the weight measurement device must be ± 1 percent of the weight of the reactive component of the flux being measured. The permittee may apply to the Division for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of ± 1 percent impracticable. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standards. [40 CFR 63.1510(j)(1)(ii)]
 - 3) The permittee must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. [40 CFR 63.1510(j)(1)(iii)]
 - ii. Calculate and record the gaseous or liquid reactive flux injection rate (kg/Mg or lb/ton) for each operating cycle or time period used in the performance test using the procedure in 40 CFR 63.1512(o). [40 CFR 63.1510(j)(2)]
 - iii. Record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight, and type of flux for each addition of: [40 CFR 63.1510(j)(3)]
 - 1) Gaseous or liquid reactive flux other than chlorine; and [40 CFR 63.1510(j)(3)(i)]
 - 2) Solid reactive flux. [40 CFR 63.1510(j)(3)(ii)]
 - iv. Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedures 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

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

affected source will meet the relevant emission standards on a continuous basis. [40 CFR 63.1510(j)(5)]

- l. For each emission unit in Group 7, the permittee shall monitor the following: [401 KAR 52:020, Section 10]
 - i. The monthly and 12-month rolling aluminum processed in tons;
 - ii. The monthly average process weight rate in tons/hr;
 - iii. The monthly operating hours;
 - iv. The hourly PM emission rate, as calculated for **2. Emission Limitations (i)**, in lb/hr;
 - v. The monthly and 12-month rolling emissions of PM, PM₁₀, PM_{2.5}, CO, NO_x, VOC, and CO_{2e} in tons;
 - vi. The monthly and 12-month rolling natural gas usage in MMscf;
 - vii. Daily pressure drop readings across each baghouse.
- m. For EU 030, EU 031, and EU 032, the permittee shall monitor the following: [401 KAR 52:020, Section 10]
 - i. The daily aluminum production in tons;
 - ii. The daily operating hours; and
 - iii. The block 24-hr average PM_{2.5} emission rate in lb/hr.
- n. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using Reference Method 9. In lieu of determining the opacity using U.S. EPA 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]
- o. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee must 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)]
- b. As required by 40 CFR 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
 - i. The permittee shall retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained on-site and 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)]
- c. 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 with emissions controlled by a fabric filter or a lime-injected fabric filter: [40 CFR 63.1517(b)(1)]
 - 1) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken. [40 CFR 63.1517(b)(1)(i)]
 - 2) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.1517(b)(1)(ii)]
 - ii. For each 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 with emissions controlled by a lime-injected fabric filter: [40 CFR 63.1517(b)(4)]
 - 1) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken; [40 CFR 63.1517(b)(4)(i)]
 - 2) If lime feeder setting is monitored, records of daily 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)]

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

- 3) 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)]
- iv. For each group 1 furnace or in-line fluxer, records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid, or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken. [40 CFR 63.1517(b)(5)]
- v. For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]
- vi. 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. [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. A current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
 - 1) OM&M plan; and [40 CFR 63.1517(b)(16)(ii)]
 - 2) 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)]
 - 1) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken. [40 CFR 63.1517(b)(18)(i)]

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

- 2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.1517(b)(18)(ii)]
- xiv. For each period of startup or shutdown for which the permittee chooses to demonstrate compliance for an affected source, the permittee must comply with 40 CFR 63.1517(b)(19)(i) or (ii). [40 CFR 63.1517(b)(19)]
 - 1) To demonstrate compliance based on a feed/charge rate of zero, a flux rate of zero and the use of electricity, propane or natural gas as the sole sources of heating or the lack of heating, the permittee must submit a semiannual report in accordance with 40 CFR 63.1516(b)(2)(vii) or maintain the following records: [40 CFR 63.1517(b)(19)(i)]
 - (A) The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(i)(A)]
 - (B) The quantities of feed/charge and flux introduced during each startup and shutdown; and [40 CFR 63.1517(b)(19)(i)(B)]
 - (C) The types of fuel used to heat the unit, or that no fuel was used, during startup and shutdown; or [40 CFR 63.1517(b)(19)(i)(C)]
 - 2) To demonstrate compliance based on performance tests, the permittee shall maintain the following records: [40 CFR 63.1517(b)(19)(ii)]
 - (A) The date and time of each startup and shutdown; [40 CFR 63.1517(b)(19)(ii)(A)]
 - (B) The measured emissions in lb/hr or µg/hr or ng/hr; [40 CFR 63.1517(b)(19)(ii)(B)]
 - (C) The measured feed/charge rate in tons/hr or Mg/hr from the most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data is available; and [40 CFR 63.1517(b)(19)(ii)(C)]
 - (D) An explanation to support that such conditions are considered representative startup and shutdown operations. [40 CFR 63.1517(b)(19)(ii)(D)]
- d. For each emission point in Group 7, the permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
 - i. The monthly and 12-month rolling aluminum production in tons;
 - ii. The monthly average process weight rate in tons/hr;
 - iii. The monthly operating hours;
 - iv. The hourly PM emission rate, as calculated for **2. Emission Limitations (i)**, in lb/hr;
 - v. The monthly and 12-month rolling emissions of PM, PM₁₀, PM_{2.5}, CO, NO_x, VOC, and CO_{2e} in tons;
 - vi. The monthly and 12-month rolling natural gas usage in MMscf;
 - vii. Maintenance activities performed on the baghouses serving the furnaces in Group 7;
 - viii. The GCOP Plan as well as any revisions;
 - ix. A log of the qualitative visual observations made as specified in **4. Specific Monitoring Requirements (m)** including the date, time, initials of observer, whether any emissions were observed (yes/no), and any U.S. EPA Reference Method 9 readings taken;
 - x. Daily pressure drop readings across each baghouse.

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

- e. For EU 030, EU 031, and EU 032, the permittee shall keep records of the following: [401 KAR 52:020, Section 10]
 - i. The daily aluminum production in tons;
 - ii. The daily operating hours; and
 - iii. The block 24-hr average PM_{2.5} emission rate in lb/hr.
- f. The permittee shall maintain records of any time that any emission unit in Group 7 was not operated according to the GCOP plan required by **1. Operating Limitations (I)** with a description of the situation and actions taken to remedy the issue. [401 KAR 51:017]
- g. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

- a. The permittee shall submit the OM&M plan within 90 days after a successful initial performance test under 40 CFR 63.1511(b). The plan shall be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510 (b) and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(b)]
- b. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]
 - i. If the Division determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of 40 CFR 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.
 - ii. If the permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the permittee submits a description of the changes and a revised plan incorporating them to the Division.
- c. For the sidewall group 1 furnaces, the permittee must 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)]
- d. If the permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR 63.1510(j)(5) and 40 CFR 63.1510(v), the permittee may submit an application to the Administrator Any such application will be processed according to the criteria and procedures set forth in 40 CFR 63.1510(w)(1) through (6). [40 CFR 63.1510(w)]
 - i. The Administrator will not approve averaging periods other than those specified in 40 CFR 63.1510. [40 CFR 63.1510(w)(1)]
 - ii. The permittee must continue to use the original monitoring requirement until necessary data are submitted and approval is received to use another monitoring procedure. [40 CFR 63.1510(w)(2)]

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

- iii. The permittee must submit the application for approval of alternate monitoring methods no later than the notification of the performance test. The application shall contain the information specified in 40 CFR 63.1510(w)(3)(i) through (iii): [40 CFR 63.1510(w)(3)]
 - 1) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach; [40 CFR 63.1510(w)(3)(i)]
 - 2) A description of the proposed alternative monitoring requirements, including the operating parameters to be monitored, the monitoring approach and technique, and how the limit is to be calculated; and [40 CFR 63.1510(w)(3)(ii)]
 - 3) Data and information documenting that the alternative monitoring requirement(s) would provide equivalent or better assurance of compliance with the relevant emission standard(s). [40 CFR 63.1510(w)(3)(iii)]
 - iv. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard(s). Before disapproving any alternate monitoring application, the Administrator will provide: [40 CFR 63.1510(w)(4)]
 - 1) Notice of the information and findings upon which the intended disapproval is based; and [40 CFR 63.1510(w)(4)(i)]
 - 2) Notice of opportunity for the permittee to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the permittee to provide additional supporting information. [40 CFR 63.1510(w)(4)(ii)]
 - v. The permittee is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application nor the Administrator's failure to approve or disapprove the application relieves the permittee of the responsibility to comply with any provisions of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(w)(5)]
 - vi. The Administrator may decide at any time, on a case-by-case basis, that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(w)(6)]
- e. The permittee must submit a notification of compliance status report within 90 days after conducting the initial performance test required by 40 CFR 63.1511(b). The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report shall include: [40 CFR 63.1512(q), 40 CFR 63.1512(r), 40 CFR 63.1512(s), 40 CFR 63.1515(b)]
 - i. All information required in 40 CFR 63.9(h). The permittee shall provide a complete performance test report for each affected source and emission unit for which a performance test is required. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests). [40 CFR 63.1515(b)(1)]
 - ii. The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system). [40 CFR 63.1515(b)(2)]

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

- iii. Unit labeling as described in 40 CFR 63.1506(b), including process type or furnace classification and operating requirements. [40 CFR 63.1515(b)(3)]
 - iv. The compliant operating parameter values or ranges established for each affected source or emission unit with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, total reactive fluorine flux injection rate for uncontrolled group 1 furnaces, afterburner operating temperature, fabric filter inlet temperature), including the time period used in the performance test. [40 CFR 63.1515(b)(4)]
 - v. Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in 40 CFR 63.1506(c). [40 CFR 63.1515(b)(5)]
 - vi. If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems as specified in 40 CFR 63.1510(f). [40 CFR 63.1515(b)(6)]
 - vii. The OM&M plan. [40 CFR 63.1515(b)(9)]
- f. The permittee must submit semiannual reports according to the requirements in 40 CFR 63.10(e)(3) and **Section F.5**. Except, the permittee must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in 40 CFR 63.10(e)(3)(v). When no deviations of parameters have occurred, the permittee must submit a report stating that no excess emissions occurred during the reporting period. A report must be submitted if any of the following conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]
- i. 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)]
 - ii. 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)]
 - iii. 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)]
 - iv. An affected source (including an emission unit in a SAPU) was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
 - v. A deviation from the 3-day, 24-hour rolling average emission limit for a SAPU. [40 CFR 63.1516(b)(1)(vii)]
- g. Each semiannual report must include the following certifications, if applicable: [40 CFR 63.1516(b)(2)]
- i. For each sidewall group 1 furnace with add-on air pollution control devices: “Each furnace was operated such that the level of molten metal remained above the top of the passage between the sidewall and hearth during reactive fluxing, and reactive flux, except for cover flux, was added only to the sidewall or to a furnace hearth equipped with an add-on air pollution control device for PM, HCl, and D/F emissions during this reporting period.” [40 CFR 63.1516(b)(2)(iii)]
 - ii. 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

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

- 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)]
- h. The permittee must submit the results of any performance test conducted during the semiannual reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested. [40 CFR 63.1516(b)(3)]
 - i. 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)]
 - i. 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)]
 - j. For the purpose of annual certifications of compliance required by 40 CFR 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(b)(2)]
 - k. 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)]
 - l. 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)]

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

- m. The permittee shall include, in the semi-annual report, any time that an emission unit listed above was not operated according to the GCOP plan required by **1. Operating Limitations (l)** with a description of the situation and actions taken to remedy the issue. Refer to **5. Specific Recordkeeping Requirements (f)**. [401 KAR 51:017]
- n. The permittee shall submit certification that the design elements proposed as BACT for the emission units listed above have been implemented in the final construction. Any deviations from the design elements proposed in the application shall be analyzed for changes in air emissions profile. Design changes and emission analysis shall be submitted in a report to the Division prior to construction of the changed element. Any changes shall also be incorporated into the GCOP. [401 KAR 51:017]
- o. Refer to **Section F** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

- a. The permittee shall design, install, operate, and maintain a baghouse to control particulate emissions from each emission unit in Group 7. Each baghouse must be designed to achieve the following exit grain loading values: [401 KAR 51:017]
 - i. For Hot Baghouse #2: 0.002 gr/dscf
 - ii. For Hot Baghouse #3: 0.002 gr/dscf
 - iii. For Hot Baghouse #4: 0.002 gr/dscf
- b. The baghouses associated with the emission units listed above shall be properly maintained, used in conjunction with operation of the underlying emission units, and operated consistent with the manufacturer's specifications. [401 KAR 52:020, Section 10]
- c. The permittee shall maintain a daily log of the pressure drop across each baghouse and ensure it remains in the proper operating range as specified by the manufacturer and as required by the OM&M plan. [401 KAR 52:020, Section 10]
- d. Refer to **Section E**.

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

Emission Unit 033 (EU 033)

Front-Load Tilting Melting Furnace

Description: Receives runaround scrap and prime charge (clean charge) via a charge transfer car only and does not support reactive fluxing. The control device is shared with EU 032 – NDC Recycling Furnace. This emission unit is a new Group 2 furnace under 40 CFR 63, Subpart RRR.

Emission Unit	Unit Name	Maximum Capacity (ton/hr)	Maximum Burner Heat Input Capacity (MMBtu/hr)	Control Device	Construction Commenced
033	Front-Load Tilting Melting Furnace	27.6	66.0	Lime-Injected Hot Baghouse #3	2022

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration*

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 Division 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. The permittee must provide and maintain easily visible labels posted at each group 2 furnace that identifies the applicable emission limits and means of compliance, including: [40 CFR 63.1506(b)]
 - i. The type of affected source or emission unit (e.g. Group 2 furnace). [40 CFR 63.1506(b)(1)]
 - ii. The applicable operational standard(s) and control method(s) (work practice or control device). This includes, but is not limited to, the type of charge to be used for a furnace (e.g. clean scrap only, 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 shall: [401 KAR 51:017]
 - 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);

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

- ii. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to the baghouse; and
 - iii. Operate each capture/collection system according to the procedures and requirements in the OM&M plan.
- d. The permittee must operate EU 033 using only clean charge as the feedstock and using no reactive flux. [40 CFR 63.1506(o)]
- e. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]
- f. The permittee shall prepare and implement for EU 033, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division within 90 days after startup. The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b), and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the procedures in **6. Specific Reporting Requirements (b)**. Each plan shall contain the following information: [40 CFR 63.1510(b)]
- i. Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device. [40 CFR 63.1510(b)(1)]
 - ii. A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]
 - iii. Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in 40 CFR 63.1505. [40 CFR 63.1510(b)(3)]
 - iv. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: [40 CFR 63.1510(b)(4)]
 - 1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
 - 2) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in 40 CFR 63, Subpart A. [40 CFR 63.1510(b)(4)(ii)]

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

- v. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]
- vi. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR 63.1510(b)(1), including: [40 CFR 63.1510(b)(6)]
 - 1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]
 - 2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]
- vii. A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. [40 CFR 63.1510(b)(7)]
- g. Prior to changing furnace classifications to those not already authorized in **Section B**, the permittee shall submit a permit application to incorporate the applicable standards from 40 CFR 63, Subpart RRR. [401 KAR 52:020, Section 7]
- h. The BACT determination for Greenhouse Gases (CO_{2e}) requires the facility to meet the following design and operational requirements: [401 KAR 51:017]
 - i. The facility design shall incorporate the use of molten metal vortexing when charging shredded scrap in the sidewall to ensure rapid and efficient mixing of incoming scrap stream with molten metal bath and the use of regenerative burners to achieve the maximum combustion air preheat temperatures of any available burner class.
 - ii. Installing and maintaining an insulation-lined door with adequate door seals to prevent cold air infiltration.
 - iii. Installing and maintaining a limit switch on door to drive burners to low fire and to open flue damper when the door is raised.
 - iv. Utilizing a molten metal circulation well to avoid bath temperature stratification and to decrease the impact of introducing cold charge to the metal bath.
 - v. Installing and maintaining seals and modern insulation media to minimize heat losses from the furnace hearth, upper and lower sidewalls, doors, roof, and any openings around the burners or other equipment traversing through the furnace shell.
 - vi. Periodic preventive maintenance of gas supply valves in accordance with the manufacturer's recommended procedures and schedule.
 - vii. Periodic calibration of gas supply meter in accordance with the manufacturer's recommended procedures and schedule.
 - viii. Periodic calibration of furnace pressure control system in accordance with the manufacturer's recommended procedures and schedule.
 - ix. Installing, operating, and maintaining regenerative burners in accordance with manufacturer's specifications to achieve consistent air preheat temperatures resulting in high thermal efficiency.

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

- i. The permittee shall prepare and maintain, within 90 days of startup, a good combustion and operation practices (GCOP) plan that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing PM, PM₁₀, PM_{2.5}, NO_x, CO, VOC, and GHG emissions. Any revisions requested by the Division shall be made and the revisions shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division’s inspection. The plan shall include, but not be limited to: [401 KAR 51:017]
 - i. A list of combustion optimization practices and a means of verifying the practices have occurred.
 - ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred.
 - iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.
- j. The permittee shall install low-NO_x burners on EU 033 capable of meeting 0.11 lb/MMBtu. [401 KAR 51:017]
- k. The permittee shall limit the operation of each emission unit as necessary to comply with the emission standards in **2. Emission Limitations**. [401 KAR 51:017]

Compliance Demonstration Method:

- 1) For **1. Operating Limitations (a) through (g)**, the permittee shall demonstrate compliance by meeting the requirements in **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.
- 2) For **1. Operating Limitations (h) and (i)**, the permittee shall demonstrate compliance as follows:
 - A. The facility construction shall be completed in accordance with the approved GCOP plan. Refer to **6. Specific Reporting Requirements (k)**.
 - B. Prepare, maintain, and implement the GCOP plan. Refer to **5. Specific Recordkeeping Requirements (c-d)** and **6. Specific Reporting Requirements (j)**.
 - C. The permittee shall perform testing for PM, PM₁₀, PM_{2.5}, NO_x, CO, and VOC. Refer to **3. Testing Requirements (a)**.

2. Emission Limitations:

- a. Emissions of PM, PM₁₀, and PM_{2.5} shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Unit	Description	BACT for PM (filterable)	BACT for PM₁₀	BACT for PM_{2.5}
033	Front-Load Tilting Melting Furnace	0.02 lb/ton; 2.16 ton/yr	0.07 lb/ton; 8.72 ton/yr	0.07 lb/ton; 6.04 ton/yr

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

Note: lb/hr limits are based on a 3-hour average and ton/yr limits are based on a 12-month rolling total.

- b. The permittee shall not allow the emissions of PM_{2.5} to exceed the block 24-hr average limits in the following table: [401 KAR 51:017]

Emission Point	Description	24-hr average for PM_{2.5}
033	Front-Load Tilting Melting Furnace	1.380 lb/hr

- c. Emissions of CO, NO_x, VOC, and GHG shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Unit	Description	BACT for CO	BACT for NO_x	BACT for VOC	BACT for GHG (CO_{2e})
033	Front-Load Tilting Melting Furnace	0.22 lb/ton; 26.70 tons/yr	0.27 lb/ton; 32.21 tons/yr	0.08 lb/ton; 10.17 tons/yr	33,851 tpy

Note: lb/hr limits are based on a 3-hour average and ton/yr limits are based on a 12-month rolling total.

- d. The permittee shall not cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]
- e. For emissions from a control device or stack the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2)]

- i. For process weight rates of ≤ 0.5 tons/hour: 2.34 lbs/hr
- ii. For process weight rates of ≤ 30 tons/hour: $E = 3.59P^{0.62}$

Where:

E = rate of emission in lb/hr; and

P = process weight rate in tons/hr.

Compliance Demonstration Method:

- 1) For **2. Emission Limitations (a)** and **(c)** the permittee shall demonstrate compliance by meeting the requirements in **1. Operating Limitations (h-i)**, **3. Testing Requirements (a-b)**, **4. Specific Monitoring Requirements (e)**, and **5. Specific Recordkeeping Requirements (c)**.
- 2) For **2. Emission Limitations (b)** the permittee shall demonstrate compliance each day by comparing the allowable rate to the actual rate calculated using the following equation:

$$E_{PM2.5} = \frac{PR_j \times EF_{PM2.5}}{h_j} \times \left(1 - \frac{CE}{100}\right)$$

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

Where:

$E_{PM2.5}$ = the actual 24-hour average PM_{2.5} emission rate (lb/hr);

j = calendar day;

PR_j = the actual tons of aluminum for day j (tons/hr);

$EF_{PM2.5}$ = the overall uncontrolled PM_{2.5} emission factor approved by the Division or established during the most recent performance test (lb/ton);

h_j = the actual total hours of operation for day j (hrs/day); and

CE = the overall control efficiency (%).

- 3) For **2. Emission Limitations (d)**, compliance must be demonstrated by complying with **4. Specific Monitoring Requirements (d)** and **5. Specific Recordkeeping Requirements (c)**.
- 4) For **2. Emission Limitations (e)**, the permittee shall demonstrate compliance each month by comparing the allowable rate to the actual rate calculated using the following equation:

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

Where:

i = month;

E_{PMi} = the actual average hourly particulate emissions rate for month i (lb/hr);

P_i = the actual specific operating parameter for month i (units/month);

EF_{PM} = the overall uncontrolled KYEIS particulate emission factor (lb/unit);

h_i = the actual total hours of operation for month i (hrs/month); and

CE = the overall control efficiency (%).

3. Testing Requirements:

- a. Within 60 days after achieving the maximum production rate but no later than 180 days after initial startup, and every 5 years thereafter, the permittee shall perform stack testing for NO_x, VOC and CO emissions from EU 033 using the following methods: [401 KAR 51:017]
 - i. U.S. EPA Method 7E for NO_x;
 - ii. U.S. EPA Method 25A for VOC; and
 - iii. U.S. EPA Method 10 for CO;
 - iv. An alternate method as approved by the Division;
 - v. This testing shall establish an emission factor for each unit for NO_x, VOC, and CO in lb/ton of aluminum and demonstrate compliance with the emission limits in **2. Emission Limitations (c)**.
- b. Within 60 days after achieving the maximum production rate but no later than 180 days after initial startup, and every 5 years thereafter, the permittee shall perform stack testing for PM, PM₁₀, and PM_{2.5} emissions from EU 033, using 40 CFR 51, Appendix M, Method 201A/202, and 40 CFR 60, Appendix A, Method 5 (or an alternate method as approved by the Division) on both the inlet and outlet of the baghouse. [401 KAR 51:017]
 - i. Prior to the test, the permittee shall establish a pressure drop range and volumetric flowrate range in accordance with the manufacturer's written instructions and operate the control device within these ranges during the test.
 - ii. The permittee shall monitor process weight rate, fan amps, and volumetric flow rate during the test.

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

iii. This testing shall establish an inlet and outlet emission factor for PM, PM₁₀, and PM_{2.5} in lb/ton of aluminum and demonstrate compliance with the emission limits in **2. Emission Limitations (a)**.

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

4. Specific Monitoring Requirements:

a. The permittee shall prepare and implement for each affected source, a written operation, maintenance, and monitoring (OM&M) plan. The permittee shall submit the OM&M plan to the Division no later than the compliance date established by 40 CFR 63.1501(a). Refer to **6. Specific Reporting Requirements (a) and (b)**, below, for OM&M plan requirements. [40 CFR 63.1510(b)]

b. The permittee must inspect equipment 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)]

c. The permittee must: [40 CFR 63.1510(r)]

i. Record a description of the materials charged to EU 033, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents. [40 CFR 63.1510(r)(1)]

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)]

d. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using Reference Method 9. In lieu of determining the opacity using U.S. EPA 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]

e. The permittee shall monitor the following: [401 KAR 52:020, Section 10]

i. The monthly and 12-month rolling aluminum production in tons;

ii. The monthly average process weight rate in tons/hr;

iii. The monthly operating hours;

iv. The hourly PM emission rate, as calculated for **2. Emission Limitations (d)**, in lb/hr;

v. The monthly and 12-month rolling emissions of PM, PM₁₀, PM_{2.5}, CO, NO_x, VOC, and CO_{2e} in tons;

vi. The monthly and 12-month rolling natural gas usage in MMscf;

vii. Daily pressure drop readings across each baghouse;

viii. The daily aluminum production in tons;

ix. The daily operating hours; and

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

- x. The block 24-hr average PM_{2.5} emission rate in lb/hr.
- f. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. As required by 40 CFR 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and 40 CFR 63, Subpart RRR. [40 CFR 63.1517(a)]
 - i. The permittee shall retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained on-site and the remaining 3 years of records may be retained off site. [40 CFR 63.1517(a)(1)]
 - ii. The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and [40 CFR 63.1517(a)(2)]
 - iii. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]
- b. In addition to the general records required by 40 CFR 63.10(b), the permittee must keep the following records: [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. [40 CFR 63.1517(b)(12)]
 - iii. Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements. [40 CFR 63.1517(b)(13)]
 - iv. Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]
 - v. A 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)]
 - 1) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken. [40 CFR 63.1517(b)(18)(i)]
 - 2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5) and 63.1520(a)(8), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.1517(b)(18)(ii)]
- c. The permittee shall maintain records of any time that EU 033 was not operated according to the GCOP plan required by **1. Operating Limitations (i)** with a description of the situation and actions taken to remedy the issue. [401 KAR 51:017]

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

- d. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
 - i. The monthly and 12-month rolling aluminum production in tons;
 - ii. The monthly average process weight rate in tons/hr;
 - iii. The monthly operating hours;
 - iv. The hourly PM emission rate, as calculated for **2. Emission Limitations (d)**, in lb/hr;
 - v. The monthly and 12-month rolling emissions of PM, PM₁₀, PM_{2.5}, CO, NO_x, VOC, and CO_{2e} in tons;
 - vi. The monthly and 12-month rolling natural gas usage in MMscf;
 - vii. Maintenance activities performed on the baghouse;
 - viii. The GCOP Plan as well as any revisions;
 - ix. A log of the qualitative visual observations made as specified in **4. Specific Monitoring Requirements (d)** including the date, time, initials of observer, whether any emissions were observed (yes/no), and any U.S. EPA Reference Method 9 readings taken;
 - x. Daily pressure drop readings across the baghouse;
 - xi. The daily aluminum production in tons;
 - xii. The daily operating hours; and
 - xiii. The block 24-hr average PM_{2.5} emission rate in lb/hr.
- e. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

- a. The permittee shall submit the OM&M plan within 90 days after a successful initial performance test and the subsequent performance test. The plan shall be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of 40 CFR 63.1510(b) and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1510(b)]
- b. The permittee shall comply with all of the provisions of the OM&M plan as submitted to the Division, unless and until the plan is revised in accordance with the following procedures: [40 CFR 63.1510(b)]
 - i. If the Division determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of 40 CFR 63.1510(b) or 40 CFR 63, Subpart RRR, the permittee shall promptly make all necessary revisions and resubmit the revised plan.
 - ii. If the permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the permittee submits a description of the changes and a revised plan incorporating them to the Division.
- c. The permittee must submit a notification of compliance status report within 90 days after startup. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include: [40 CFR 63.1515(r); 40 CFR 63.1515(b)]
 - i. All information required in 40 CFR 63.9(h). [40 CFR 63.1515(b)(1)]
 - ii. Unit labeling as described in 40 CFR 63.1506(b), including process type or furnace classification and operating requirements. [40 CFR 63.1515(b)(3)]
 - iii. The OM&M plan. [40 CFR 63.1515(b)(9)]

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

- d. The permittee must submit semiannual reports according to the requirements in 40 CFR 63.10(e)(3) and **Section F.5**. Except, the permittee must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in 40 CFR 63.10(e)(3)(v). When no deviations of parameters have occurred, the permittee must submit a report stating that no excess emissions occurred during the reporting period. A report must be submitted if any of the following conditions occur during a 6-month reporting period: [40 CFR 63.1516(b)(1)]
 - i. 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)]
 - ii. Any affected source was not operated according to the requirements of 40 CFR 63, Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
 - iii. Each report must include the following certification, if applicable: “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)]
- e. A malfunction report that is required under 40 CFR 63.1516(d) shall be submitted simultaneously with the semiannual excess emissions/summary report required by 40 CFR 63.1516(b). [40 CFR 63.1516(b)(4)]
- f. For the purpose of annual certifications of compliance required by 40 CFR part 70 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)]
- g. If there was a malfunction during the reporting period, the permittee must submit a report that includes the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken for each malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must include a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions, including, but not limited to, product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.1506(a)(5). [40 CFR 63.1516(d)]

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

- h. All reports required by 40 CFR 63, Subpart RRR not subject to the requirements in 40 CFR 63.1516(b) must be sent to the Administrator at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Administrator and the permittee, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to 40 CFR 63.1516(b) in paper format. [40 CFR 63.1516(e)]
 - i. The permittee shall maintain a daily log of the pressure drop across each baghouse and ensure it remains in the proper operating range as specified by the manufacturer and as required by the OM&M plan. [401 KAR 52:020, Section 10]
 - j. The permittee shall include, in the semi-annual report, any time that an emission unit listed above was not operated according to the GCOP plan required by **1. Operating Limitations (i)** with a description of the situation and actions taken to remedy the issue. Refer to **5. Specific Recordkeeping Requirements (c)**. [401 KAR 51:017]
 - k. The permittee shall submit certification that the design elements proposed as BACT for the emission units listed above have been implemented in the final construction. Any deviations from the design elements proposed in the application shall be analyzed for changes in air emissions profile. Design changes and emission analysis shall be submitted in a report to the Division prior to construction of the changed element. Any changes shall also be incorporated into the GCOP. [401 KAR 51:017]
 - l. Refer to **Section F** for general reporting requirements.
- 7. Specific Control Equipment Operating Conditions:**
- a. The permittee shall design, install, operate, and maintain a baghouse to control particulate emissions from EU 033. The baghouse must be designed to achieve an exit grain loading value of 0.002 gr/dscf. [401 KAR 51:017]
 - b. The baghouse associated with EU 033 shall be properly maintained, used in conjunction with operation of the underlying emission units, and operated consistent with the manufacturer's specifications. [401 KAR 52:020, Section 10]
 - c. Refer to **Section E**.

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

Emission Group 8 – Dross Processing and Cutting Operations

Emission Unit 038 (EU 038) Dross House

Description: Dross produced in the melting furnaces, holding furnace, and in-line degasser is collected and transported to the dross processing building where dross is cooled, stored, loaded into trucks, and sold.

Emission Unit 045 (EU 045) Ingot Saw

Description: One ingot saw to cut reject ingots into smaller pieces for recycling through the melting furnaces or cutting the heads and tails off of cast ingots before shipping to downstream rolling mills. Equipped with an integral cyclone and vents to a dedicated filtration unit.

Emission Unit	Unit Name	Maximum Capacity (ton/hr)	Control Device	Construction Commenced
038	Dross House	2.5	Dross House Baghouse	2022
045	Ingot Saw	72.3	Cyclone/Filtration Unit	2024

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration*

401 KAR 59:010, *New process operations*

STATE-ORIGIN REQUIREMENTS:

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to EU 045.

1. Operating Limitations:

- a. The permittee shall limit the operation of each emission unit as necessary to comply with the emission standards in **2. Emission Limitations**. [401 KAR 51:017]
- b. The permittee shall prepare and implement, upon initial compliance demonstration but no later than 180 days after startup, a Good Work Practices (GWP) plan that includes written operating instructions and procedures that specify good operating and maintenance practices and includes, at a minimum, the following specific practices targeting PM, PM₁₀, PM_{2.5}, and VOC emission minimization, and a means of verifying the practices have occurred: [401 KAR 51:017]
 - i. Tracking material usage to ensure that equipment is operated as designed and correcting any operating or design issues as quickly as possible;
 - ii. Employing a preventative maintenance program, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
 - iii. Downdraft and/or plastic strip air curtains at building openings with the potential for fugitive particulate emissions;

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

- iv. After removal from the furnaces, all dross shall be deposited into dross carrying pots and transported to the designated dross processing area;
- v. Controlling lubricant application rates to ensure process conditions are maintained at optimum levels;
- vi. Maintaining the supplied lubricant temperature within desired ranges to minimize volatilization; and
- vii. Implementing spill prevention and other waste reduction measures to ensure that the lubricant remains within the bounds of the storage, circulation, filtration, and treatment systems.

Compliance Demonstration Method:

The permittee shall demonstrate compliance as follows:

- 1) The facility construction shall be completed in accordance with the approved GWP plan. Refer to **6. Specific Reporting Requirements (b)**.
- 2) Prepare, maintain, and implement the GWP plan. Refer to **5. Specific Recordkeeping Requirements (b)** and **6. Specific Reporting Requirements (b)**.
- 3) The permittee shall perform testing for PM, PM₁₀, and PM_{2.5}. Refer to **3. Testing Requirements (a)**.

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)]
- 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 of ≤ 0.5 tons/hour: 2.34 lbs/hr
 - ii. For process weight rates of ≤ 30 tons/hour: $E = 3.59P^{0.62}$
 - iii. For process weight rates of > 30 tons/hour: $E = 17.3P^{0.16}$

Where:
 E = rate of emission in lb/hr; and
 P = process weight rate in tons/hr.
- c. 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 procedures and emission potential will be made on an individual basis by the cabinet. [401 KAR 63:020, Section 3]

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

- d. Emissions of PM, PM₁₀, and PM_{2.5} shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for PM (filterable)	BACT for PM ₁₀	BACT for PM _{2.5}
038	Dross House	2.72 lb/hr; 11.91 ton/yr	2.56 lb/hr; 11.19 ton/yr	2.12 lb/hr; 5.57 ton/yr
045	Ingot Saw	0.022 lb/hr; 0.10 ton/yr	0.022 lb/hr; 0.10 ton/yr	0.022 lb/hr; 0.10 ton/yr

Note: lb/hr limits are based on a 3-hour average and ton/yr limits are based on a 12-month rolling total.

- e. The permittee shall not allow the emissions of PM_{2.5} to exceed the block 24-hr average limits in the following table: [401 KAR 51:017]

Emission Point	Description	24-hr average for PM _{2.5}
038	Dross House	1.272 lb/hr

- f. Emissions of VOC shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Unit	Description	BACT for VOC
045	Ingot Saw	0.99 lb/hr; 4.34 tons/yr

Note: lb/hr limits are based on a 3-hour average and ton/yr limits are based on a 12-month rolling total.

Compliance Demonstration Method:

- For **2. Emission Limitations (a)**, compliance must be demonstrated by complying with **4. Specific Monitoring Requirements (d)** and **5. Specific Recordkeeping Requirements (c)**.
- The permittee is assumed to be in compliance with **2. Emission Limitations (b)**, when complying with **2. Emission Limitations (d)**.
- For **2. Emission Limitations (c)**, 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.
- For **2. Emission Limitations (d)**, compliance must be demonstrated by complying with **1. Operating Limitations**, **3. Testing Requirements (a)**, **4. Specific Monitoring Requirements (a)**, and **5. Specific Recordkeeping Requirements (a)**.
- For **2. Emission Limitations (e)** the permittee shall demonstrate compliance each day by comparing the allowable rate to the actual rate calculated using the following equation:

$$E_{PM2.5} = \frac{PR_j \times EF_{PM2.5}}{h_j} \times \left(1 - \frac{CE}{100}\right)$$

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Where:

$E_{PM_{2.5}}$ = the actual 24-hour average $PM_{2.5}$ emission rate (lb/hr);

j = calendar day;

PR_j = the actual tons of dross processed for day j (tons/hr);

$EF_{PM_{2.5}}$ = the overall uncontrolled $PM_{2.5}$ emission factor approved by the Division or established during the most recent performance test (lb/ton);

h_j = the actual total hours of operation for day j (hrs/day); and

CE = the overall control efficiency (%).

- 6) For **2. Emission Limitations (f)**, compliance must be demonstrated by complying with **4. Specific Monitoring Requirements (a)** and **5. Specific Recordkeeping Requirements (a)**.

3. Testing Requirements:

- a. Within 60 days after achieving the maximum production rate but no later than 180 days after initial startup, and every 5 years thereafter, the permittee shall perform stack testing for PM, PM_{10} , and $PM_{2.5}$ emissions from EU 038, using 40 CFR 51, Appendix M, Method 201A, and 40 CFR 60, Appendix A, Method 5 (or an alternate method as approved by the Division) on both the inlet and outlet of the baghouse. [401 KAR 51:017]
- i. Prior to the test, the permittee shall establish a pressure drop range and volumetric flowrate range in accordance with the manufacturer's written instructions and operate the control device within these ranges during the test.
- ii. The permittee shall monitor process weight rate, fan amps, and volumetric flow rate during the test.
- iii. This testing shall establish an inlet and outlet emission factor for PM, PM_{10} , and $PM_{2.5}$ in lb/ton of aluminum and demonstrate compliance with the emission limits in **2. Emission Limitations (d)**.
- b. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
- i. The monthly and 12-month rolling total hours of operation;
- ii. The monthly and 12-month rolling total process weight rate, in tons;
- iii. The monthly and 12-month rolling total of lubricant used, in tons;
- iv. The hourly PM, PM_{10} , $PM_{2.5}$, and VOC emission rates, in lb/hr;
- v. The monthly and 12-month rolling PM, PM_{10} , $PM_{2.5}$, and VOC emission rates, in ton/yr;
- vi. For EU 038: the daily dross processed in tons;
- vii. For EU 038: the daily operating hours; and
- viii. For EU 038: the block 24-hr average $PM_{2.5}$ emission rate in lb/hr.
- b. For each baghouse, the permittee shall continuously monitor the pressure drop from the baghouse entrance to the baghouse exit. The monitoring equipment shall be installed,

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

calibrated, operated, and maintained in accordance with the manufacturer's recommendations. [401 KAR 52:020, Section 10]

- c. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using Reference Method 9. In lieu of determining the opacity using U.S. EPA 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]
- d. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
 - i. The monthly and 12-month rolling total hours of operation;
 - ii. The monthly and 12-month rolling total process weight rate, in tons;
 - iii. The monthly and 12-month rolling total of lubricant used, in tons;
 - iv. The monthly and 12-month rolling PM, PM₁₀, PM_{2.5}, and VOC emission rates, in ton/yr;
 - v. For each baghouse, the pressure drop measurements;
 - vi. The GWP Plan as well as any revisions;
 - vii. A log of the qualitative visual observations made as specified in 4. **Specific Monitoring Requirements (c)** including the date, time, initials of observer, whether any emissions were observed (yes/no), and any U.S. EPA Reference Method 9 readings taken;
 - viii. All maintenance activities performed for each piece of control equipment;
 - ix. For EU 038: the daily dross processed in tons;
 - x. For EU 038: the daily operating hours; and
 - xi. For EU 038: the block 24-hr average PM_{2.5} emission rate in lb/hr.
- b. The permittee shall maintain records of any time that an emission unit was not operated according to the GWP plan required by 1. **Operating Limitations (b)** with a description of the situation and actions taken to remedy the issue. [401 KAR 51:017]
- c. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

- a. The permittee shall include, in the semi-annual report, any time that an emission unit listed above was not operated according to the GWP plan required by 1. **Operating Limitations (b)** with a description of the situation and actions taken to remedy the issue. Refer to 5. **Specific Recordkeeping Requirements (b)**. [401 KAR 51:017]
- b. The permittee shall submit certification that the design elements proposed as BACT for the emission units listed above have been implemented in the final construction. Any deviations from the design elements proposed in the application shall be analyzed for changes in air

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

emissions profile. Design changes and emission analysis shall be submitted in a report to the Division prior to construction of the changed element. Any changes shall also be incorporated into the GWP. [401 KAR 51:017]

c. Refer to **Section F** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The permittee shall design, install, operate, and maintain a baghouse to control particulate emissions from each emission unit in Group 8. Each baghouse must be designed to achieve the following exit grain loading values: [401 KAR 51:017]

i. For Dross House Baghouse: 0.002 gr/dscf

b. The baghouses and capture systems associated with Group 8 shall be properly maintained, used in conjunction with operation of the underlying emission units, and operated consistent with the manufacturer's specifications at all times. [401 KAR 52:020, Section 10]

c. Refer to **Section E**.

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

Emission Group 9 – Direct and Small Indirect-Fired Heating Units

Emission Unit 037 (EU 037) Sow Dryer

Description: Natural gas-fired drier preheats aluminum sows and other forms of hard “clean charge” prior to manually feeding into the furnaces.

Emission Unit 041a (EU 041a) Direct-Fired Building Heating Systems **Emission Unit 041b (EU 041b) Indirect-Fired Building Heating Systems ≤ 1 MMBtu**

Description: 39 building heating units across different buildings/process areas designed for comfort with no direct discharge to atmosphere. Includes 8 direct-fired units and 31 indirect-fired units ≤ 1 MMBtu/hr. Maximum individual heating rate input for EU 041a is 3.02 MMBtu/hr.

Emission Unit 046a (EU 046a) CFF Preheater **Emission Unit 046b (EU 046b) DBF Preheater**

Description: Ceramic foam filter (CFF) and deep bed filter (DBF) preheaters for ensuring that temperatures are maintained within acceptable ranges during the transfer between the holding furnace and casting machine. The CFF Preheater is not equipped with a stack and discharges combustion emissions inside of the building.

Emission Unit	Unit Name	Maximum Capacity (ton/hr)	Maximum Burner Heat Input Capacity (MMBtu/hr)	Control Device	Construction Commenced
037	Sow Dryer	15.87	16.0	None	2022
041a	Direct-Fired Building Heating Systems	-	14.81 (total)	None	2022
041b	Indirect-Fired Building Heating Systems ≤ 1 MMBtu	-	5.67 (total)	None	2022
046a	CFF Preheater	-	0.32	None	2024
046b	DBF Preheater	-	3.8	None	2024

APPLICABLE REGULATIONS:

401 KAR 51:017, Prevention of significant deterioration

401 KAR 59:010, New process operations

STATE-ORIGIN REQUIREMENTS:

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

1. Operating Limitations:

- a. The permittee shall use only natural gas as fuel. [401 KAR 51:017]

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

- b. The permittee shall prepare and maintain, upon initial compliance demonstration but no later than 90 days after startup, a good combustion and operation practices (GCOP) plan that defines, measures, and verifies the use of operational and design practices determined as BACT for minimizing PM, PM₁₀, PM_{2.5}, NO_x, CO, VOC, and GHG emissions. Any revisions to the GCOP plan requested by the Division shall be made and the revisions shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]
 - i. A list of combustion optimization practices and a means of verifying the practices have occurred.
 - ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred.
 - iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.
- c. The permittee shall meet the following design and operational requirements as the BACT determination for GHG: [401 KAR 51:017]
 - i. Use only pipeline quality natural gas.
 - ii. Install, operate, and maintain a combustion system that includes air-to-fuel ratio control for improved fuel efficiency, adequate temperature for complete combustion, and sufficient gas residence time to complete combustion.
 - iii. Conduct periodic calibration of gas supply system in accordance with manufacturer's recommended procedures and schedule.
 - iv. Maintain gas supply valves in accordance with the manufacturer's recommended procedures and schedule.
- d. For EU 037, the permittee shall ensure that the furnace uses insulated media, door seals, and seals around equipment traversing the furnace shell to minimize convective and radiant heat losses. [401 KAR 51:017]
- e. The permittee shall install line-type burners on EU 037 capable of meeting 0.109 lb/MMBtu and certified to meet ANSI Z83.4 / CGA 3.7 emissions standards for NO_x. [401 KAR 51:017]
- f. The permittee shall install low-NO_x burners on EU 046b capable of meeting 0.076 lb/MMBtu. [401 KAR 51:017]

Compliance Demonstration Method:

- 1) The facility construction shall be completed in accordance with the BACT determination for GHGs and incorporating the design elements listed above. Refer to **6. Specific Reporting Requirements (a)**, below.
- 2) The permittee shall prepare, maintain, and implement the GCOP plan. Refer to **1. Operating Limitations (b)**.

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

3) Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements (a) and (b)**, and **6. Specific Reporting Requirements (a) and (b)**.

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)]
- 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), Appendix A]
 - i. For process weight rates of ≤ 0.5 tons/hour: 2.34 lbs/hr
 - ii. For process weight rates of ≤ 30 tons/hour: $E = 3.59P^{0.62}$
 - iii. For process weight rates of > 30 tons/hour: $E = 17.3P^{0.16}$

Where:
 E = rate of emission in lb/hr; and
 P = process weight rate in tons/hr.
- c. 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 procedures and emission potential will be made on an individual basis by the cabinet. [401 KAR 63:020, Section 3]
- d. Emissions of PM, PM₁₀, and PM_{2.5} shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for PM (filterable)	BACT for PM₁₀	BACT for PM_{2.5}
037	Sow Dryer	0.03 lb/hr; 0.13 ton/yr	0.06 lb/hr; 0.24 ton/yr	0.06 lb/hr; 0.24 ton/yr
041a	Direct-Fired Building Heating Systems	0.03 lb/hr; 0.12 ton/yr	0.05 lb/hr; 0.23 ton/yr	0.05 lb/hr; 0.23 ton/yr
041b	Indirect-Fired Building Heating Systems ≤ 1 MMBtu	0.01 lb/hr; 0.05 ton/yr	0.02 lb/hr; 0.09 ton/yr	0.02 lb/hr; 0.09 ton/yr
046b	DBF Preheater	0.007 lb/hr; 0.032 tons/yr	0.013 lb/hr; 0.057 tons/yr	0.013 lb/hr; 0.057 tons/yr

Note: lb/hr limits are based on a monthly average and ton/yr limits are based on a 12-month rolling total.

- e. Emissions of CO, NO_x, VOC, and GHG shall not exceed the limits in the following table: [401 KAR 51:017]

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

Emission Point	Description	BACT for CO	BACT for NO_x	BACT for VOC	BACT for GHG (CO₂e)
037	Sow Dryer	2.37 lb/hr; 10.37 tons/yr	1.74 lb/hr; 7.64 tons/yr	0.09 lb/hr; 0.39 tons/yr	8,206 tpy
041a	Direct-Fired Building Heating Systems	1.24 lb/hr; 5.45 tons/yr	1.48 lb/hr; 6.49 tons/yr	0.08 lb/hr; 0.36 tons/yr	7,793 tpy
041b	Indirect-Fired Building Heating Systems ≤ 1 MMBtu	0.48 lb/hr; 2.09 tons/yr	0.57 lb/hr; 2.48 tons/yr	0.03 lb/hr; 0.14 tons/yr	2,984 tpy
046b	DBF Preheater	0.32 lb/hr; 1.40 tons/yr	0.29 lb/hr; 1.26 tons/yr	0.021 lb/hr; 0.092 tons/yr	2,000 tpy

Note: lb/hr limits are based on a monthly average and ton/yr limits are based on a 12-month rolling total.

Compliance Demonstration Method:

- 1) Compliance with the limits described in 2. **Emission Limitations (a-b)** is assumed when burning natural gas.
- 2) Compliance with the hourly limits described in 2. **Emission Limitations (d-e)** shall be determined by operating according to good combustion and operation practices, including periods of startup, shutdown, and malfunction. The practices shall be incorporated into the plant standard operating procedures (SOP) and shall identify combustion optimization practices and a means of verifying the practices have occurred.
- 3) Compliance with the annual limits described in 2. **Emission Limitations (d-e)** shall be determined by comparing the allowable rate to the actual rate, calculated as follows:

$$E = \sum_{i=1}^{12} \frac{x_i \times EF}{2000}$$

Where:

E = actual emission rate (tons/yr);

i = month;

x_i = natural gas combusted in month *i* (MMscf);

EF = emission factor of pollutant (lbs/MMscf).

- 4) The Cabinet has determined that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and supplemental information submitted by the source.

3. Testing Requirements:

- a. For EU 037, within 60 days after achieving the maximum production rate but no later than 180 days after initial startup, the permittee shall perform stack testing for NO_x and CO emissions using the following methods: [401 KAR 51:017]
 - i. U.S. EPA Method 7E for NO_x;

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

- ii. U.S. EPA Method 10 for CO;
 - iii. An alternate method as approved by the Division;
 - iv. This testing shall establish an emission factor for each unit for NO_x and CO in lb/MMscf and demonstrate compliance with the emission limits in **2. Emission Limitations (e)**.
- b. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.
- 4. Specific Monitoring Requirements:**
- a. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
 - i. The monthly operating hours;
 - ii. The monthly and 12-month rolling natural gas usage in MMscf; and
 - iii. The monthly and 12-month rolling emissions of PM, PM₁₀, PM_{2.5}, NO_x, CO, VOC, and GHGs.
 - b. Refer to **Section F** for general monitoring requirements.
- 5. Specific Recordkeeping Requirements:**
- a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
 - i. The monthly operating hours;
 - ii. The monthly and 12-month rolling natural gas usage in MMscf;
 - iii. The monthly and 12-month rolling emissions of PM, PM₁₀, PM_{2.5}, NO_x, CO, VOC, and GHGs;
 - iv. The GCOP plan as well as any revisions.
 - b. The permittee shall maintain records of any time that an emission point listed above was not operated according to the GCOP plan with a description of the situation and actions taken to remedy the issue. [401 KAR 51:017]
 - c. Refer to **Section F** for general recordkeeping requirements.
- 6. Specific Reporting Requirements:**
- a. The permittee shall include, in the semi-annual report, any time that that an emission point listed above was not operated according to the GCOP plan with a description of the situation and actions taken to remedy the issue. Refer to **5. Specific Recordkeeping Requirements (b)**. [401 KAR 51:017]
 - b. The permittee shall submit certification that the design elements proposed as BACT for the emission units listed above have been implemented in the final construction. Any deviations from the design elements proposed in the application shall be analyzed for changes in air emissions profile. Design changes and emission analysis shall be submitted in a report to the Division prior to construction of the changed element. Any changes shall also be incorporated into the GCOP. [401 KAR 51:017]
 - c. Refer to **Section F** for general reporting requirements.

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

Emission Unit 042 (EU 042) Hot Baghouse Lime Silos #1, #2, & #3

Description: Storage silos for supplying alkaline reagent to the baghouses. Silos are pneumatically loaded via truck.

Emission Unit	Unit Name	Maximum Capacity (ton/hr)	Control Device	Construction Commenced
042	Hot Baghouse Lime Silos #1, #2, and #3	0.225	Bin Vent Filters	2022

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration*

401 KAR 59:010, *New process operations*

1. Operating Limitations:

- a. The permittee shall limit the operation of each emission unit as necessary to comply with the emission standards in **2. Emission Limitations**. [401 KAR 51:017]
- b. The permittee shall prepare and implement, upon initial compliance demonstration but no later than 180 days after startup, a Good Work Practices (GWP) plan that includes written operating instructions and procedures that specify good operating and maintenance practices and includes, at a minimum, the following specific practices targeting PM, PM₁₀, and PM_{2.5} emission minimization, and a means of verifying the practices have occurred: [401 KAR 51:017]
 - i. Installation and use of a high-level sensor to avoid overfilling; and
 - ii. Equipping the fill line from the truck unload station to the silo with a pneumatic knife gate with operator.

Compliance Demonstration Method:

The permittee shall demonstrate compliance with **1. Operating Limitations (a-b)** by meeting the requirements in **4. Specific Monitoring Requirements (b)** and **5. Specific Recordkeeping Requirements (b)**.

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)]
- b. 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 2.34 lb/hr. [401 KAR 59:010, Section 3(2), Appendix A]
- c. Emissions of PM shall not exceed the limits in the following table: [401 KAR 51:017]

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

Emission Unit	Description	BACT for PM (filterable)	BACT for PM ₁₀	BACT for PM _{2.5}
042	Hot Baghouse Lime Silos #1, #2, and #3	0.0016 lb/hr; 0.007 ton/yr	0.0016 lb/hr; 0.007 ton/yr	0.0016 lb/hr; 0.007 ton/yr

Note: lb/hr limits are based on a 3-hour average and ton/yr limits are based on a 12-month rolling total.

Compliance Demonstration Method:

- 1) For **2. Emission Limitations (a)**, compliance must be demonstrated by complying with **4. Specific Monitoring Requirements (d)** and **5. Specific Recordkeeping Requirements (c)**.
- 2) For **2. Emission Limitations (b)**, the permittee is assumed to be in compliance when complying with the BACT limits in **2. Emission Limitations (c)**.
- 3) Compliance with the annual limits described above shall be determined by comparing the allowable rate to the actual rate calculated using the following equation:

$$E_{PM} = \sum_{i=1}^{12} \frac{(EF_{PM} \times P_i)}{2000}$$

Where:

i = month;

E_{PM} = the actual annual particulate emissions rate (tons/yr);

P_i = the actual specific process weight rate for month i (tons/month); and

EF_{PM} = the overall uncontrolled KYEIS particulate emission factor (lbs/ton).

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack no less frequently than once every week while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), then the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]
- b. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
 - i. The monthly and 12-month rolling process weight rate in tons;
 - ii. The monthly operating hours; and
 - iii. The monthly and 12-month rolling emissions of PM, PM₁₀, and PM_{2.5}.
- c. Refer to **Section F** for general monitoring requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**5. Specific Recordkeeping Requirements:**

- a. The permittee shall maintain a log of the dates and times of each qualitative visible emission observation and U.S. EPA Reference Method 9 observation performed as required by 4. **Specific Monitoring Requirements (a)**, whether any emissions were observed (yes/no), initials of observer, as well as any corrective action taken due to observed emissions. [401 KAR 52:020, Section 10]
- b. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
 - i. The monthly and 12-month rolling process weight rate in tons;
 - ii. The monthly operating hours;
 - iii. Maintenance performed on the control equipment;
 - iv. The monthly and 12-month rolling emissions of PM, PM₁₀, and PM_{2.5} in tons; and
 - v. Any time that an emission unit was not operated according to the GWP plan with a description of the situation and actions taken to remedy the issue.
- c. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

- a. The control devices associated with the emission units listed above shall be properly maintained, kept in good operating condition, used in conjunction with operation of the underlying emission units and operated consistent with the manufacturer's specifications. [401 KAR 51:017]
- b. The permittee shall maintain records of the manufacturer's specifications for each control device identified in the table above, identifying the grain loading, control efficiency, and flow rate for which each control device was designed. The bin vent filters shall be designed to achieve the BACT limits in 2. **Emission Limitations**. [401 KAR 51:017]
- c. Refer to **Section E**.

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

Emission Unit 043 (EU 043) Cooling Tower #1

Description: Four-cell mechanical draft cooling tower to provide cooled water to the casting machine.

Emission Unit	Unit Name	Maximum Capacity (MMgal/hr)	Control Device	Construction Commenced
043	Cooling Tower #1	0.288	Mist Eliminator	2022

APPLICABLE REGULATIONS:

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

401 KAR 59:010, *New process operations*

PRECLUDED REGULATIONS:

401 KAR 63:002, Section 2(4)(j), 40 C.F.R. 63.400 to 63.407, Table 1 (Subpart Q), *National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers*

1. Operating Limitations:

- a. The use of chromium based water treatment chemicals in the cooling tower is prohibited. [To preclude 40 CFR 63, Subpart Q]

Compliance Demonstration Method:

Refer to 5. **Specific Recordkeeping Requirements (d)** and 6. **Specific Reporting Requirements**.

- b. Water flow rate to Cooling Tower #1 shall not exceed 4,800 gallons per minute. Total dissolved solids (TDS) concentration shall not exceed 1,000 ppm. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm. [401 KAR 51:017]

Compliance Demonstration Method:

The permittee shall install, operate, and maintain flow meters to monitor the total flow to the cooling tower.

- c. The permittee shall perform regular cooling tower maintenance as recommended by the vendor to assure that the drift loss is maintained at or below the levels specified above at all times. [401 KAR 51:017]

Compliance Demonstration Method:

Refer to 5. **Specific Recordkeeping Requirements (b)**.

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)

- 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 of ≤ 0.50 ton/hr: 2.34 lb/hr
 - ii. For process weight rates of ≤ 30 tons/hr: $E = 3.59P^{0.62}$
 - iii. For process weight rates of > 30 tons/hr: $E = 17.3P^{0.16}$

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

- c. Emissions of PM, PM₁₀, and PM_{2.5} shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Unit	Description	BACT for PM (filterable)	BACT for PM₁₀	BACT for PM_{2.5}
043	Cooling Tower #1	0.024 lb/hr 0.11 ton/yr	0.011 lb/hr 0.05 ton/yr	0.00006 lb/hr 0.0002 ton/yr

Note: lb/hr limits are based on a monthly average and ton/yr limits are based on a 12-month rolling total

Compliance Demonstration Method:

- 1) For **2. Emission Limitations (a)**, compliance must be demonstrated by complying with **4. Specific Monitoring Requirements (c)** and **5. Specific Recordkeeping Requirements (c)**.
 - 2) For **2. Emission Limitations (b)**, the permittee is assumed to be in compliance when complying with the BACT limits in **2. Emission Limitations (c)**.
 - 3) For **2. Emission Limitations (c)** the permittee shall demonstrate compliance by meeting the requirements in **1. Operating Limitations**, **4. Specific Monitoring Requirements (a-b)**, and **5. Specific Recordkeeping Requirements (a-b)**.
- 3. Testing Requirements:**
 Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.
- 4. Specific Monitoring Requirements:**
- a. The permittee shall monitor relevant cooling tower operating parameters (e.g., conductivity as an indicator for total dissolved solids concentration, time interval between blowdown events, etc.) at a sufficient frequency to ensure the recirculating water blowdown and makeup water addition event is triggered when the recirculating water total dissolved solids concentration is expected to approach the level in **1. Operating Limitations (b)**. [401 KAR 52:020, Section 10]
 - b. The permittee shall monitor the monthly throughput of EU 043. [401 KAR 52:020, Section 10]

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

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

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the frequency and results of monitoring of operating parameters chosen in **4. Specific Monitoring Requirements (a)**. [401 KAR 52:020, Section 10]
- b. The permittee shall maintain records of the monthly throughput of EU 043. [401 KAR 52:020, Section 10]
- c. The permittee shall maintain records of maintenance performed on the cooling tower and mist eliminator in accordance with the manufacturer's recommendations. [401 KAR 52:020, Section 10]
- d. The permittee shall maintain records of the qualitative visual observations required by **4. Specific Monitoring Requirements (c)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions. [401 KAR 52:020, Section 10]
- e. The permittee shall maintain records of water treatment chemical purchases, including invoices and other documentation that includes invoices and other documentation that includes date(s) of purchase or shipment, trade name or other information to identify composition of the product, and quantity of the product. [To preclude 40 CFR 63, Subpart Q]
- f. The permittee shall maintain records of the monthly and 12-month rolling emissions of PM, PM₁₀, and PM_{2.5}. [401 KAR 52:020, Section 10]
- g. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

- a. The permittee shall include in the first semi-annual report after startup the chosen monitoring parameters and frequency used to ensure the requirements in **1. Operating Limitations (b)** are met. [401 KAR 52:020, Section 10]
- b. Refer to **Section F** for general reporting requirements.

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

7. Specific Control Equipment Operating Conditions:

- a. The permittee shall install, operate, and maintain high-efficiency mist eliminators capable of meeting the requirements in **1. Operating Limitations (c)**. The permittee shall verify this by maintaining records of the manufacturer's certification or performing testing. [401 KAR 51:017]
- b. Refer to **Section E**.

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

Emission Unit 044 (EU 044)

Diesel Fuel Storage and Refueling Station

Description: A 3000-gallon capacity diesel fuel storage tank for various mobile equipment and maintenance operations.

Emission Unit	Unit Name	Maximum Capacity (gal/yr)	Control Device	Construction Commenced
044	Diesel Fuel Storage and Refueling Station	85,000	None	2022

APPLICABLE REGULATIONS:

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

1. Operating Limitations:

The permittee shall prepare and implement, upon initial compliance demonstration but no later than 180 days after startup, a Good Work Practices (GWP) plan that includes written operating instructions and procedures that specify good operating and maintenance practices and includes, at a minimum, the following specific practices targeting VOC emission minimization, and a means of verifying the practices have occurred: [401 KAR 51:017]

- a. The emission unit must be designed and equipped with a submerged fill pipe; and
- b. The emission unit must be designed and equipped with spill and overfill protection.

2. Emission Limitations:

None.

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
 - i. The monthly and 12-month rolling total hours of operation;
 - ii. The monthly and 12-month rolling total fuel consumed.
- b. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
 - i. The monthly and 12-month rolling total hours of operation;
 - ii. The monthly and 12-month rolling total fuel consumed.
- b. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

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. EU 001 - HTL - Pre-Cleaner (control - wet scrubber)	401 KAR 59:010
2. EU 004A - PTL- Alkaline Etch and Rinse (control - wet scrubber)	401 KAR 59:010
3. EU 004B – PTL - Acid Etch and Rinse (control - wet scrubber)	401 KAR 59:010 401 KAR 63:020
4. EU 004C - PTL - Pretreatment and Rinse (control - wet scrubber)	401 KAR 59:010
5. EU 010 - Lime Storage Silo (control – passive sock filter)	401 KAR 59:010
6. EU 013 - HTL Tension Leveler	None
7. EU 015 - Reluber	None
8. EU 016 - PTL-Stenciler 1	401 KAR 63:020
9. EU 017 - PTL-Stenciler 2	401 KAR 63:020
10. EU 018 - HTL-Stenciler 1	401 KAR 63:020
11. Tank Farm (TK-1 – TK-10)	None
i. TK-1 – 500 Gallon Diesel Storage Tank	
ii. TK-2010 – 8,500 Gallon Gardoclean S 5160 Storage Tank	
iii. TK-2020 – 8,500 Gallon Gardoclean S5240/2 Storage Tank	
iv. TK-2070 – 6,100 Gallon Magiesol 52 Oil Storage Tank	
v. TK-2030 – 8,500 Gallon Gardobond X 4591 E2 Storage Tank	
vi. TK-6 – 7,925 Gallon Bonderite 243 Storage Tank	
vii. TK-7 – 6,100 Gallon 50% Sulfuric Acid Storage Tank	
viii. TK-2040 – 8,500 Gallon Gardobond X 4591 A1 (TiZr) Storage Tank	
ix. TK-2060 – 10,275 Gallon NaOH (Neutralizer) Storage Tank	
x. TK-2080 – 6,100 Gallon Gardobond Additive H7274 Storage Tank	
xi. TK-2090 – 6,100 Gallon Hydrex 3211 Storage Tank	
xii. TK-1000 – 13,200 Gallon Alkaline Waste Products Storage Tank	
xiii. TK-1010 – 13,200 Gallon Other/Pretreatment Waste Storage Tank	
xiv. TK-1020 – 13,200 Gallon Acid Waste Products Storage Tank	
xv. TK-10 – 4,417 Gallon Waste Oil Storage Tank	

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

<u>Description</u>	<u>Generally Applicable Regulation</u>
12. EU 023 – Cooling Tower	401 KAR 59:010
13. EU 024 – 44 Indirect Heat Exchangers, each less than 1 MMBtu/hr & 2 Direct Fired Space Heaters, each less than 1 MMBtu/hr	401 KAR 59:010 401 KAR 63:020
14. EU 025 – 10 Make-Up Air Units, each direct fired at 3.5 MMBtu/hr	401 KAR 59:010 401 KAR 63:020
15. EU 051 – 12 Direct-Fired Molten Metal Utility Heaters	401 KAR 63:010 401 KAR 63:020

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. PM, PM₁₀, PM_{2.5}, Opacity, CO, NO_x, VOC, HCl, HF, CO_{2e} and D/F TEQ 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

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
2. For EU 026, EU 029, EU 030, EU 031, EU 032, and EU 034.
 - a. The permittee shall: [40 CFR 63.1510(d)]
 - i. Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and [40 CFR 63.1510(d)(1)]
 - ii. Inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR 63.1506(c) and record the results of each inspection. This inspection shall include a volumetric flow rate measurement taken at a location in the ductwork downstream of the hoods that is representative of the actual volumetric flow rate without interference due to leaks, ambient air added for cooling or ducts from other hoods. The flow rate measurement must be performed in accordance with 40 CFR 63.1510(d)(2)(i), (ii), or (iii). As an alternative to the flow rate measurement specified in this paragraph, the inspection may satisfy the requirements of this paragraph, 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 U.S. EPA Methods 1 and 2 in 40 CFR 60, Appendix A, or conduct annual verification of a permanent total enclosure using U.S. EPA Method 204; or the permittee may follow one of the three alternate procedures described in 40 CFR 63.1510(d)(2)(ii), (iii), or (iv) to maintain system operations in accordance with an operating limit established during the performance test. The operating limit is determined as the average reading of a parametric monitoring instrument (Magnehelic®, manometer, anemometer, or other parametric monitoring instrument) and technique as described in 40 CFR 63.1510(d)(2)(ii), (iii), and (iv). A deviation, as defined in 40 CFR 63.1510(d)(2)(ii), (iii), and (iv), from the parametric monitoring operating limit requires the permittee to make repairs or adjustments to restore normal operation within 45 days. [40 CFR 63.1510(d)(2)(i)]
 - B. As an alternative to annual flow rate measurements using U.S. EPA Methods 1 and 2, measurement with U.S. EPA Methods 1 and 2 can be performed once every 5 years, provided that: [40 CFR 63.1510(d)(2)(ii)]
 - a. A flow rate indicator consisting of a pitot tube and differential pressure gauge (Magnehelic®, manometer or other differential pressure gauge) is installed with the pitot tube tip located at a representative point of the duct proximate to the

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS
(CONTINUED)**

- location of the Methods 1 and 2 measurement site; and [40 CFR 63.1510(d)(2)(ii)(A)]
- b. The flow rate indicator is installed and operated in accordance with the manufacturer's specifications; and [40 CFR 63.1510(d)(2)(ii)(B)]
 - c. The differential pressure is recorded during the Method 2 performance test series; and [40 CFR 63.1510(d)(2)(ii)(C)]
 - d. Daily differential pressure readings are made by taking three measurements with at least 5 minutes between each measurement and averaging the three measurements; and readings are recorded daily and maintained at or above 90 percent of the average pressure differential indicated by the flow rate indicator during the most recent Method 2 performance test series; and [40 CFR 63.1510(d)(2)(ii)(D)]
 - e. An inspection of the pitot tube and associated lines for damage, plugging, leakage and operational integrity is conducted at least once per year; or [40 CFR 63.1510(d)(2)(ii)(E)]
- 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)]
- a. Daily measurements of the capture and collection system's fan revolutions per minute (RPM) or fan motor amperage (amps) are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at or above 90 percent of the average RPM or amps measured during the most recent Method 2 performance test series; or [40 CFR 63.1510(d)(2)(iii)(A)]
 - b. A static pressure measurement device is installed in the duct immediately downstream of the hood exit, and daily pressure readings are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at 90 percent or better of the average vacuum recorded during the most recent Method 2 performance test series; or [40 CFR 63.1510(d)(2)(iii)(B)]
 - c. A hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple and automated data logging software and associated hardware is installed; and daily readings are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at 90 percent or greater of the average readings during the most recent Method 2 performance test series; or [40 CFR 63.1510(d)(2)(iii)(C)]
 - d. For booth-type hoods, hotwire anemometer measurements of hood face velocity are performed simultaneously with U.S. EPA Method 1 and 2 measurements, and the annual hood face velocity measurements confirm that the enclosure draft is maintained at 90 percent or greater of the average readings during the most recent Method 2 performance test series. Daily readings are made by

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS
(CONTINUED)**

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 U.S. EPA Method 204, verification can be performed once every 5 years, provided that: [40 CFR 63.1510(d)(2)(iv)]
 - a. Negative pressure in the enclosure is directly monitored by a pressure indicator installed at a representative location; [40 CFR 63.1510(d)(2)(iv)(A)]
 - b. Pressure readings are recorded daily or the system is interlocked to halt material feed should the system not operate under negative pressure; [40 CFR 63.1510(d)(2)(iv)(B)]
 - c. An inspection of the pressure indicator for damage and operational integrity is conducted at least once per calendar year. [40 CFR 63.1510(d)(2)(iv)(C)]
- 3. The permittee shall calibrate or replace any monitoring devices (i.e. pressure drop monitoring equipment) for the control equipment in **Section E.2.** in a manner consistent with the manufacturer's recommendations or, at a minimum, annually. [401 KAR 52:020, Section 10]

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

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

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, shall be defined as follows:
 - a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
 - b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
 - c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.
9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.

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

- e. For an emissions unit that was still under construction, or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
- f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the following addresses:

Division for Air Quality	U.S. EPA Region 4
Bowling Green Regional Office	Air Enforcement Branch
2642 Russellville Road	Atlanta Federal Center
Bowling Green, KY 42101	61 Forsyth St. SW
	Atlanta, GA 30303-8960

- 10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

SECTION G - GENERAL 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.].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in this permit; and
 - (2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

3. Permit Revisions

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

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

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission units 047, 048, 049, and 050 in accordance with the terms and conditions of this permit, V-22-011 R2.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
- b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, notification of the following:
 - (1) The date when construction commenced.
 - (2) The date of start-up of the affected facilities listed in this permit.
 - (3) The date when the maximum production rate specified in the permit application was achieved.
- c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- d. Pursuant to 401 KAR 50:055, Section 2(1)(a), an owner or operator of any affected facility subject to any standard within the administrative regulations of the Division for Air Quality shall demonstrate compliance with the applicable standard(s) within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of such facility. Pursuant to 401 KAR 52:020, Section 3(3)(c), sources that have not demonstrated compliance within the timeframes prescribed in 401 KAR 50:055, Section 2(1)(a), shall operate the affected facility only for purposes of demonstrating compliance unless authorized under an approved compliance plan or an order of the cabinet.
- e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.
- f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

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)

SECTION G - GENERAL PROVISIONS (CONTINUED)

days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.

- b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

7. Emergency Provisions

- a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (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

SECTION G - GENERAL PROVISIONS (CONTINUED)

emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.

(5) This requirement does not relieve the source of other local, state or federal notification requirements.

b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

(1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.

(2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.

(3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.155.

(5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156 and 40 CFR 82.157.

(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

9. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to U.S. EPA using the RMP* eSubmit software.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

None.

SECTION I - COMPLIANCE SCHEDULE

N/A