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:	**Fritz Winter North America, LP**
Mailing Address:	**1 Fritz Winter Drive, Franklin, Kentucky 42134**
Source Name:	**Fritz Winter North America, LP**
Mailing Address:	**1 Fritz Winter Drive, Franklin, Kentucky 42134**
Source Location:	**Same as above**
Permit ID:	**V-25-035**
Agency Interest #:	**129745**
Activity ID:	**APE20210001, APE20220001, APE20220002, & APE20220003**
Review Type:	**Title V / Title I - PSD**
Source ID:	**21-213-00064**
Regional Office:	**Bowling Green Regional Office 2642 Russellville Road Bowling Green, KY 42101 (270) 746-7475**
County:	**Simpson**
Application Complete Date:	**January 18, 2023**
Issuance Date:	
Expiration Date:	

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

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Permit	Permit Type	Activity #	Complete Date	Issuance Date	Summary of Action
V-25-035	Renewal	APE20210001	1/18/2023		Renewal of Permit
	Minor Rev	APE20220001	5/18/2022		Addition of EU 83
	Minor Rev	APE20220002	5/18/2022		Addition of EU 84
	PSD/Sig Rev	APE20220003	1/18/2023		Consolidation of EUs 01, 13, 22, 23, 24, 33, 36, 52, & 54 Removal of EUs 03, 04, 11, 12, 16, 34, 37, 41, 42, 46, 49, 58, 62, 70, 75, 80, & 81 Addition of EUs 77, 78, 79, 82, & 85.

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

METAL MELTING FURNACES

Emission Group 01 – Melt Shop

Description: Four (4) electric induction furnaces that have a maximum short-term capacity of 10 tons of gray iron per hour each, or 40 tons of gray iron per hour combined.

EU07 Induction Furnace #1
Manufacturer: Junker
Model: MFTGe Duomelt
Construction Commenced: March 2017
Maximum Throughput: 10 tons of gray iron/hr
Controls: Baghouse (CU01)

EU08 Induction Furnace #2
Manufacturer: Junker
Model: MFTGe Duomelt
Construction Commenced: March 2017
Maximum Throughput: 10 tons of gray iron/hr
Controls: Baghouse (CU01)

EU09 Induction Furnace #3
Manufacturer: Junker
Model: MFTGe Duomelt
Construction Commenced: July 2019
Maximum Throughput: 10 tons of gray iron/hr
Controls: Baghouse (CU01)

EU10 Induction Furnace #4
Manufacturer: Junker
Model: MFTGe Duomelt
Construction Commenced: July 2019
Maximum Throughput: 10 tons of gray iron/hr
Controls: Baghouse (CU01)

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)(bbbbb), 40 C.F.R. 63.10880 through 63.10906, Tables 1 through 4 (Subpart ZZZZZ), *National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources*

1. **Operating Limitations**
   a. The permittee shall comply with the pollution prevention management practices in 40 CFR 63.10885 and 63.10886, the requirements in 40 CFR 63.10895(b) through (e), and the requirements in 40 CFR 63.10896 through 63.10900. [40 CFR 63.10895(a)]

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b. The permittee shall operate a capture and collection system for each metal melting furnace. Each capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists. [40 CFR 63.10895(b)]

c. The permittee shall prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for each induction furnace. The permittee shall maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan shall contain the following information: [40 CFR 63.10896(a)]
   i. General facility and contact information; [40 CFR 63.10896(a)(1)]
   ii. Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with 40 CFR 63, Subpart ZZZZZ; [40 CFR 63.10896(a)(2)]
   iii. Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in 40 CFR 63.10897(d)(2). [40 CFR 63.10896(a)(3)]
   iv. Identity and estimated quantity of the replacement parts that will be maintained in inventory; and [40 CFR 63.10896(a)(4)]
   v. Procedures for operating and maintaining a continuous parameter monitoring system (CPMS) in accordance with manufacturer's specifications. [40 CFR 63.10896(a)(5)]

d. The permittee may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in 40 CFR 63.10896(a)(1) through (5) to demonstrate compliance with the requirements for an O&M plan. [40 CFR 63.10896(b)]

e. 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. [40 CFR 63.10896(c)]

f. The permittee shall limit the operation of EUs 07, 08, 09, and 10 to a combined maximum of 80,000 tons of gray iron processed per year, on a rolling 12-month basis. [401 KAR 51:017]

Compliance Demonstration Method:
Refer to **4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements, 6. Specific Reporting Requirements** and **7. Specific Control Equipment Operating Conditions**.

g. The permittee shall maintain the capture efficiency of each hood and exhaust pickup point serving EUs 07, 08, 09, and 10 at or above 98% capture efficiency for PM, PM_{10}, and $PM_{2.5}$. [401 KAR 51:017]

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

h. The permittee shall ensure that the building removal efficiency for PM, PM_{10}, and $PM_{2.5}$ in the building that houses EUs 07, 08, 09, and 10 is at least 90%. [401 KAR 51:017]

Compliance Demonstration Method:
Compliance with **1. Operating Limitations (f)** and **(g)** shall be demonstrated by completing the testing in **3. Testing Requirements (l),** submitting the report required in **6. Specific Reporting Requirements (c)** and monitoring according to **7. Specific Control Equipment Operating Conditions (d)**.

i. The permittee shall ensure that any building vent louvers remain closed at all times to maintain negative pressure in the foundry building. [401 KAR 51:017]

2. Emission Limitations:

a. The permittee shall not discharge to the atmosphere emissions from any metal melting furnace or group of all metal melting furnaces that exceed 0.1 pounds of PM per ton of metal charged or 0.008 pounds of total metal HAP per ton of metal charged. [40 CFR 63.10895(c)(2)]

b. The permittee shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 30 percent. [40 CFR 63.10895(e); 401 KAR 51:017]
   i. For the purposes of 40 CFR 63, Subpart ZZZZZ and the limit above: *Fugitive emissions* means any pollutant released to the atmosphere that is not discharged through a system of equipment that is specifically designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. *Fugitive emissions* include pollutants released to the atmosphere through windows, doors, vents, or other building openings. *Fugitive emissions* also include pollutants released to the atmosphere through other general building ventilation or exhaust systems not specifically designed to capture pollutants at the source. [40 CFR 63.10906]

Compliance Demonstration Method:
Refer to **3. Testing Requirements, 4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements, 6. Specific Reporting Requirements,** and **7. Specific Control Equipment Operating Conditions.**

c. ***Opacity Standard:*** 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); 401 KAR 51:017]

Compliance Demonstration Method:
Refer to **4. Monitoring Requirements (d)** for opacity compliance demonstration.

d. ***Mass Emission Standard*:** The permittee shall not cause, suffer, allow or permit the emission into the open air from a control device or stack associated with any affected

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

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 weights < 0.5 tons/hour: E=2.34

ii. For process weights < 30 tons/hour: $E=3.59P^{0.62}$

Where:

E is the rate of the emission in lb/hour

P is the process weight rate in tons/hour.

Compliance Demonstration Method:

Compliance with the hourly particulate emission limitations in 401 KAR 59:010, Section 3(2) is assumed when compliance with the limitations in **SECTION D(5)** is demonstrated.

e. Refer to **SECTION D** for group PSD limits for PM, PM_{10}, and $PM_{2.5}$, and source-wide HAP emission limitations.

3. Testing Requirements:

a. The permittee shall conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in 40 CFR 63.10895(c) for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time the permittee elects to change an operating limit or make a process change likely to increase HAP emissions. [40 CFR 63.10898(b)]

b. The permittee shall conduct each performance test under conditions representative of normal operations according to the requirements in 40 CFR 63, Subpart ZZZZZ, Table 1 and 40 CFR 63.10898(d) through (g). Normal operating conditions exclude periods of startup and shutdown. You may not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.10898(c)]

c. To determine compliance with the applicable PM or total metal HAP emissions limit in 40 CFR 63.10895(c) for a metal melting furnace in a lb/ton of metal charged format, compute the process-weighted mass emissions (Ep) for each test run using Equation: [40 CFR 63.10898(d)]

(*Equation 1*)

$$E_P = \frac{C \times Q \times T}{P \times K}$$

Where:

E_p = Process-weighted mass emissions rate of PM or total metal HAP, in lbs_{PM}/ton or lbs_{HAP}/ton (kg_{PM}/Mg or kg_{HAP}/Mg) of metal charged;

C = Concentration of PM or total metal HAP measured during performance test run, in gr/dscf (g/dscm)

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

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T = Total time during a test run that a sample is withdrawn from the stack during melt production cycle, in hr;
P = Total amount of metal charged during the test run, in tons (Mg); and
K = Conversion factor, 7,000 gr/lb (1000 g/kg)

d. To determine compliance with an emissions limit for situations when multiple sources are controlled by a single control device, but only one source operates at a time or other situations that are not expressly considered in 40 CFR 63.10898(d) through (f), the permittee shall submit a site-specific test plan to the Division for approval according to the requirements in 40 CFR 63.7(c)(2) and (3). [40 CFR 63.10898(g)]

e. The permittee shall conduct each opacity test for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and 40 CFR 63, Subpart ZZZZZ, Table 1. [40 CFR 63.10898(h)]

f. The permittee shall conduct subsequent performance tests to demonstrate compliance with the opacity limit in 40 CFR 63.10895(e) no less frequently than every 6 months and each time the permittee makes a process change likely to increase fugitive emissions. [40 CFR 63.10898(i)]

g. In the performance test report, the permittee shall certify that the capture system operated normally during the performance test [40 CFR 63.10898(j)]

h. For each metal melting furnace subject to a PM or total metal HAP limit in 40 CFR 63.10895(c), the permittee shall: [40 CFR 63, Subpart ZZZZZ, Table 1(1)]
   i. Select sampling port locations and the number of traverse points in each stack or duct using EPA Method 1 or 1A (40 CFR part 60, appendix A). Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere. [40 CFR 63, Subpart ZZZZZ, Table 1(1)(a)]
   ii. Determine volumetric flow rate of the stack gas using Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A) [40 CFR 63, Subpart ZZZZZ, Table 1(1)(b)]
   iii. Determine dry molecular weight of the stack gas using EPA Method 3, 3A, or 3B (40 CFR part 60, appendix A). The permittee may also use as an alternative to EPA Method 3B (40 CFR part 60, appendix A), the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas, ANSI/ASME PTC 19.10-19 , "Flue and Exhaust Gas Analyses" (incorporated by reference—see 40 CFR 63.14). [40 CFR 63, Subpart ZZZZZ, Table 1(1)(c)]
   iv. Measure moisture content of the stack gas using EPA Method 4 (40 CFR part 60, A) [40 CFR 63, Subpart ZZZZZ, Table 1(1)(d)]
   v. Determine PM concentration using EPA Method 5, 5B, 5D, 5F, or 5I, as applicable or total metal HAP concentration using EPA Method 29 (40 CFR part 60, appendix A) [40 CFR 63, Subpart ZZZZZ, Table 1(1)(e)]
      1) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch [40 CFR 63, Subpart ZZZZZ, Table 1(1)(i)]

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vi. A minimum of three valid test runs are needed to comprise a PM or total metal HAP performance test. [40 CFR 63, Subpart ZZZZZ, Table 1(1)(iii)]
vii. Sample PM or total metal HAP only during normal melt production conditions, which may include, but are not limited to the following operations: Charging, melting, alloying, refining, slagging, and tapping. [40 CFR 63, Subpart ZZZZZ, Table 1(1)(v)]
viii. Determine and record the total combined weight of tons of metal charged during the duration of each test run. The permittee must compute the process-weighted mass emissions of PM according to Equation 1 of 40 CFR 63.10898(d) for an individual furnace or Equation 2 of 40 CFR 63.10898(e) for the group of all metal melting furnaces at the foundry [40 CFR 63, Subpart ZZZZZ, Table 1(1)(vi)]

i. For fugitive emissions from buildings or structures housing any iron and steel foundry emissions sources subject to opacity limit in 40 CFR 63.10895(e), the permittee shall: [40 CFR 63, Subpart ZZZZZ, Table 1(2)]
   i. Using a certified observer, conduct each opacity test according to EPA Method 9 (40 CFR part 60, appendix A-4) and 40 CFR 63.6(h)(5) [40 CFR 63, Subpart ZZZZZ, Table 1(2)(a)]
      1) The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(a)(i)]
      2) During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the opacity test such that the opacity observations are recorded during the PM or total metal HAP performance tests. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(a)(ii)]
   ii. As alternative to Method 9 performance test, conduct visible emissions test by Method 22 (40 CFR part 60, appendix A-7). The test is successful if no visible emissions are observed for 90 percent of the readings over 1 hour. If VE is observed greater than 10 percent of the time over 1 hour, then the facility must conduct another performance test as soon as possible, but no later than 15 calendar days after the Method 22 test, using Method 9 (40 CFR part 60, appendix A-4 [40 CFR 63, Subpart ZZZZZ, Table 1(2)(b)]
      1) The observer may identify a limited number of openings or vents that appear to have the highest visible emissions and perform observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single observation for the entire building or structure may be performed, if the fugitive release points afford such an observation. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(b)(i)]
      2) During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the visible emissions test such that the observations are recorded during the PM or total metal HAP performance tests. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(b)(ii)]

j. Except as provided in 401 KAR 50:045, performance tests used to demonstrate compliance with 401 KAR 59:010, Section 3 shall be conducted according to the following methods.

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

Kentucky Methods 50 and 150(F-1) and other methods are filed by reference in 401 KAR 50:015. [401 KAR 59:010, Section 4]

i. Reference Method 5 for the emission rates of particulate matter and the associated moisture content. [401 KAR 59:010, Section 4(1)]
ii. Reference Method 1 for sample and velocity traverses. [401 KAR 59:010, Section 4(2)]
iii. Reference Method 2 for velocity and volumetric flow rate. [401 KAR 59:010, Section 4(3)]
iv. Reference Method 3 for gas analysis. [401 KAR 59:010, Section 4(4)]
v. Reference Method 9 for opacity of continuous emissions. [401 KAR 59:010, Section 4(5)]
vi. For Reference Method 5, Reference Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least sixty (60) minutes and the minimum sample volume shall be 0.85 dscm (thirty (30) dscf) except that smaller sampling time or volumes, when necessitated by process variables or other factors, may be approved by the cabinet. [401 KAR 59:010, Section 4(7)]

k. The permittee shall, during the subsequent stack tests required by **3. Testing Requirements (a),** verify the direction of airflow through both the largest building wall opening closest to the process and the largest opening of each hood and exhaust pickup point, is inward using a smoke tube and the following procedures: [401 KAR 51:017]
   i. The direction of airflow shall be monitored for at least 1 hour, with checks made no more than 10 minutes apart.
   ii. The stack volumetric flow rate shall be monitored during the test.

l. 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 as required by the Division.

m. Refer to **SECTION D** for group testing requirements.

4. Specific Monitoring Requirements:

a. The permittee shall make monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The permittee shall repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. The permittee shall record the date and results of each inspection and the date of repair of any defect or deficiency. [40 CFR 63.10897(e)]

b. In the event of an exceedance of an established emissions limitation (including an operating limit), the permittee shall restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include taking any necessary corrective actions

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

to restore normal operation and prevent the likely recurrence of the exceedance. The permittee shall record the date and time corrective action was initiated, the corrective action taken, and the date corrective action was completed. [40 CFR 63.10897(g)]

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

d. The permittee shall monitor the following for each emission unit: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation; and
   ii. Monthly and 12-month rolling process weight (tons).

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

5. <u>Specific Recordkeeping Requirements</u>:

a. In addition to the records required by 40 CFR 63.10(b)(2)(iii) and (vi) through (xiv) and (b)(3), the permittee shall keep records of the information specified in 40 CFR 63.10899(b)(1) through (15). [40 CFR 63.10899(b)]
   i. The permittee shall keep records of monthly metal melt production for each calendar year. [40 CFR 63.10899(b)(6)]
   ii. The permittee shall keep a copy of the operation and maintenance plan as required by 40 CFR 63.10896(a) and records that demonstrate compliance with plan requirements. [40 CFR 63.10899(b)(7)]
   iii. If the permittee uses emissions averaging, the permittee shall keep records of the monthly metal melting rate for each furnace at the iron and steel foundry, and records of the calculated pounds of PM or total metal HAP per ton of metal melted for the group of all metal melting furnaces required by 40 CFR 63.10897(h). [40 CFR 63.10899(b)(8)]
   iv. If applicable, the permittee shall keep records for bag leak detection systems as follows: [40 CFR 63.10899(b)(9)]
      1) Records of the bag leak detection system output; [40 CFR 63.10899(b)(9)(i)]
      2) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and [40 CFR 63.10899(b)(9)(ii)]
      3) The date and time of all bag leak detection system alarms, and for each valid alarm, the time the permittee initiated corrective action, the corrective action taken, and the date on which corrective action was completed. [40 CFR 63.10899(b)(9)(iii)]
   v. The permittee shall keep records of capture system inspections and repairs as required by 40 CFR 63.10897(e). [40 CFR 63.10899(b)(10)]

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

vi. The permittee shall keep records demonstrating conformance with the specifications for the operation of CPMS as required by 40 CFR 63.10897(f). [40 CFR 63.10899(b)(11)]
vii. The permittee shall keep records of corrective action(s) for exceedances and excursions as required by 40 CFR 63.10897(g). [40 CFR 63.10899(b)(12)]
viii. The permittee shall record the results of each inspection and maintenance required by 40 CFR 63.10897(a) for PM control devices in a logbook (written or electronic format). The permittee shall keep the logbook onsite and make the logbook available to the Administrator upon request. The permittee shall keep records of the information specified in 40 CFR 63.10899(b)(13)(i) through (iii). [40 CFR 63.10899(b)(13)]
1) The date and time of each recorded action for a fabric filter, the results of each inspection, and the results of any maintenance performed on the bag filters. [40 CFR 63.10899(b)(13)(i)]
ix. The permittee must keep the following records for each failure to meet an emissions limitation (including operating limit), work practice standard, or operation and maintenance requirement in 40 CFR 63, Subpart ZZZZZ. [40 CFR 63.10899(b)(15)]
1) Date, start time, and duration of each failure. [40 CFR 63.10899(b)(15)(i)]
2) List of the affected sources or equipment for each failure, 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. [40 CFR 63.10899(b)(15)(ii)]
3) Actions taken to minimize emissions in accordance with 40 CFR 63.10896(c), and any corrective actions taken to return the affected unit to its normal or usual manner of operation. [40 CFR 63.10899(b)(15)(iii)]

b. The permittee shall retain 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]

c. The permittee shall maintain records of the following for each emission unit: [401 KAR 52:020, Section 10]
i. Monthly hours of operation;
ii. Monthly and 12-month rolling total process weight (tons); and
iii. SDSs for all materials used.

d. The permittee shall maintain records of the calculations required in **SECTION D.**

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

6. Specific Reporting Requirements:

a. The permittee shall submit semiannual compliance reports to the semiannual compliance reports to the EPA via the CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/) according to 40 CFR 63.10899(c). The reports must include the information specified in 40 CFR 63.10899(c)(1) through (3) and, as applicable, 40 CFR 63.10899(c)(4) through (9). [40 CFR 63.10899(c)]

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

i. Company name and address. [40 CFR 63.10899(c)(1)]
ii. 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 63.10899(c)(2)]
iii. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.10899(c)(3)]
iv. If there were no deviations from any emissions limitations (including operating limits, pollution prevention management practices, or operation and maintenance requirements), a statement that there were no deviations from the emissions limitations, pollution prevention management practices, or operation and maintenance requirements during the reporting period. [40 CFR 63.10899(c)(4)]
v. For each affected source or equipment for which there was a deviation from an emissions limitation (including an operating limit, pollution prevention management practice, or operation and maintenance requirement) that occurs at an iron and steel foundry during the reporting period, the compliance report must contain the information specified in 40 CFR 63.10899(c)(6)(i) through (iii). The requirement in 40 CFR 63.10899(c)(6) includes periods of startup, shutdown, and malfunction. [40 CFR 63.10899(c)(6)]
    1) A list of the affected source or equipment and the total operating time of each emissions source during the reporting period. [40 CFR 63.10899(c)(6)(i)]
    2) For each deviation from an emissions limitation (including an operating limit, pollution prevention management practice, or operation and maintenance requirement) that occurs at an iron and steel foundry during the reporting period, report: [40 CFR 63.10899(c)(6)(ii)]
        A. The date, start time, duration (in hours), and cause of each deviation (characterized as either startup, shutdown, control equipment problem, process problem, other known cause, or unknown cause, as applicable) and the corrective action taken; and [40 CFR 63.10899(c)(6)(ii)(A)]
        B. 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. [40 CFR 63.10899(c)(6)(ii)(B)]
    3) A summary of the total duration (in hours) of the deviations that occurred during the reporting period by cause (characterized as startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes) and the cumulative duration of deviations during the reporting period across all causes both in hours and as a percent of the total source operating time during the reporting period. [40 CFR 63.10899(c)(6)(iii)]
vi. For each continuous monitoring system (including a CPMS or CEMS) used to comply with the emissions limitation or work practice standard in 40 CFR 63, Subpart ZZZZZ that was inoperable or out-of-control during any portion of the reporting period, the permittee must include the information specified in 40 CFR 63.10899(c)(7)(i) through (vi). The requirement in 40 CFR 63.10899(c)(7) includes periods of startup, shutdown, and malfunction. [40 CFR 63.10899(c)(7)]
    1) A brief description of the continuous monitoring system, including manufacturer and model number. [40 CFR 63.10899(c)(7)(i)]

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

2) The date of the latest continuous monitoring system certification or audit. [40 CFR 63.10899(c)(7)(ii)]
3) A brief description and the total operating time of the affected source or equipment that is monitored by the continuous monitoring system during the reporting period. [40 CFR 63.10899(c)(7)(iii)]
4) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period. [40 CFR 63.10899(c)(7)(iv)]
5) For each period for which the continuous monitoring system was inoperable or out-of-control during the reporting period, report: [40 CFR 63.10899(c)(7)(v)]
   A. The date, start time, and duration (in hours) of the deviation; [40 CFR 63.10899(c)(7)(v)(A)]
   B. The type of deviation (inoperable or out-of-control); and [40 CFR 63.10899(c)(7)(v)(B)]
   C. The cause of deviation (characterized as monitoring system malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and unknown causes, as applicable) and the corrective action taken. [40 CFR 63.10899(c)(7)(v)(C)]
6) A summary of the total duration (in hours) of the deviations that occurred during the reporting period by cause (characterized as monitoring system malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and unknown causes) and the cumulative duration of deviations during the reporting period across all causes both in hours and as a percent of the total source operating time during the reporting period. [40 CFR 63.10899(c)(7)(vi)]

vii. Identification of which option in 40 CFR 63.10885(b) applies. If the permittee complies with the mercury requirements in 40 CFR 63.10885(b) by using one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision different, provide an identification of which option in 40 CFR 63.10885(b) applies to each scrap provider, contract, or shipment. [40 CFR 63.10899(c)(8)]

viii. If the permittee is subject to the requirements for a site-specific plan for mercury under 40 CFR 63.10885(b)(1), include: [40 CFR 63.10899(c)(9)]
1) The number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered; [40 CFR 63.10899(c)(9)(i)]
2) A certification that the recovered mercury switches were recycled at RCRA-permitted facilities; and [40 CFR 63.10899(c)(9)(ii)]
3) A certification that the permittee has conducted periodic inspections or taken other means of corroboration as required under 40 CFR 63.10885(b)(1)(ii)(C). [40 CFR 63.10899(c)(9)(iii)]

b. Within 60 days after the date of completing each performance test required by 40 CFR 63, Subpart ZZZZZ, the permittee must submit the results of the performance test following the procedures specified in 40 CFR 63.10899(e)(1) through (3). [40 CFR 63.10899(e)]

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

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

7. <u>Specific Control Equipment Operating Conditions</u>:

a. For all emission units listed above, the permittee shall install, calibrate, maintain and operate, according to manufacturer's specifications, fabric filters designed to achieve the BACT limits in **SECTION D(5)**. The permittee shall make these records of the manufacturer's specification for the fabric filter available for inspection by the Division. [401 KAR 51:017]

b. Refer to **SECTION E** for control device requirements pursuant to 40 CFR 63, Subpart ZZZZZ and 401 KAR 51:017.

c. The permittee shall operate the control devices associated with each emission unit at all times that the emission unit is operating. [401 KAR 51:017]

d. For the baghouse associated with EU07, EU08, EU09, and EU10, the permittee shall continuously monitor the inlet volumetric flow rate in the stack and maintain it at ± 10% of the level measured during the testing required by **3. <u>Testing Requirements</u> (k).**

e. The permittee shall install, calibrate, maintain and operate, according to manufacturer's specifications, a monitoring device (differential pressure gauges or manometers) to determine the pressure drop across each baghouse, at a minimum, once a day during the operation of the unit. A permanent label displaying the operating range established for each baghouse shall be posted next to the selected instrument. [401 KAR 51:017]

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

FOUNDRY OPERATIONS

Emission Unit	Description	BACT Control Device	Maximum Hourly Capacity	PSD Operating Limitations	Maximum Burner Capacity (MMBtu/hr)	Const. Commenced
Emission Group 1 – Melt Shop						
01	Charge Handling	Baghouse (CU01)	15.0 ton gray iron/hr.	80,000 ton gray iron/yr.	N/A	September 2016
05	Refractory Burner #1	Baghouse (CU01)	N/A	73 MMscf/yr.	8.50	May 2017
06	Refractory Burner #2	Baghouse (CU01)	N/A	73 MMscf/yr.	8.50	May 2017
13	Hot Metal Transfer	Baghouse (CU01)	15.0 ton gray iron/hr.	80,000 ton gray iron/yr.	N/A	March 2017
15	Pouring Furnace #1	Baghouse (CU01)	15 ton gray iron/hr. each	80,000 ton gray iron/yr. & 24.99 MMscf/yr.	2.91	2026
17	Melt and Core/Mold Baghouse Waste Dust Silo	Bin Vent Filter (CU02)	0.38 tons/hr.	3,323 tons of dust/yr.	N./A	September 2016
18	Refractory Curing Mobile Burner	Baghouse (CU01)	N/A	17.18 MMscf/yr.	2.00	May 2017
Emission Group 2 – Sand Plant						
19	Mold Silica Sand Silo	Bin Vent Filter (CU03)	25.0 ton mold silica sand/hr.	21,000 ton mold silica sand/yr.	N/A	March 2017
20	Blend Silo	Bin Vent Filter (CU04)	25.0 ton blend/hr.	5,500 ton blend/yr.	N/A	March 2017
21	Bentonite Silo	Bin Vent Filter (CU05)	25.0 ton bentonite/hr.	3,500 ton bentonite/yr.	N/A	March 2017
22	Silica Sand Handling and Preparation	Sand Plant Baghouse (CU06)	25 ton mold silica sand/hr.	21,000 ton mold silica sand/yr.	N/A	March 2017
23	Blend Handling and Preparation		25 ton blend/hr.	5,500 ton blend/yr.	N/A	March 2017
24	Bentonite Handling and Preparation		25 ton bentonite/hr.	3,500 ton bentonite/yr.	N/A	March 2017
29	Dust Weigh Hopper		2.80 ton waste sand/hr.	10,149 ton waste sand/yr.	N/A	March 2017
30	Green Sand Mixer #1		66.0 ton green sand/hr. each	238,920 ton green sand/yr.	N/A	March 2017
31	Green Sand Mixer #2			238,920 ton green sand/yr.	N/A	March 2017
32	Green Sand Mixer #3			238,920 ton green sand/yr.	N/A	March 2017

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

Emission Unit	Description	BACT Control Device	Maximum Hourly Capacity	PSD Operating Limitations	Maximum Burner Capacity (MMBtu/hr)	Const. Commenced
33	Mold Making #1	Baghouse (CU08)	15.0 ton gray iron/hr.	80,000 ton gray iron/yr.	N/A	January 2017
35A	Core Silica Sand Silo A	Bin Vent Filter (CU19)	25 ton core sand/hr.	3,345 ton core sand/yr.	N/A	February 2017
35B	Core Silica Sand Silo B	Bin Vent Filter (CU20)		3,345 ton core sand/yr.	N/A	February 2017
36	Core Sand Handling and Preparation	Baghouse (CU08)	1.86 ton core sand/hr.	6,690 ton core sand/yr.	N/A	February 2017
39	PUCB Core Machine #1	Packed Bed (CU07)	0.93 tons/hr. (Resin and Catalyst)	3,345 ton/yr. (Sand Resin and Catalyst); 7.7 ton/yr. (Core Release)	N/A	March 2017
40	PUCB Core Machine #2		0.0021 tons/hr. (Core Release)	3,345 ton/yr. (Resin and Catalyst); 7.7 ton/yr. (Core Release)	N/A	March 2019
43	Core Wash Station #1	Baghouse (CU08)	0.3375 ton core sand/hr.	135.0 ton core sand/yr.	N/A	March 2017
44	Core Dryer #1		32 lb. coating/hr.; 34 lb. binder/hr., each	34.35 MMscf/yr.; 58.3 ton coating/yr.; 60.2 ton binder/yr.; each	4.0	March 2017
45	Core Dryer #2				4.0	March 2019
54	Recycled Sand Handling and Preparation	Sand Plant Baghouse (CU06)	194 ton recycled sand/hr.	700,934 ton recycled sand/yr.		March 2017
57	Sand Plant Waste Sand Silo	Bin Vent Filter (CU10)	0.38 ton total used sand/hr.	3,323 ton total used sand/yr.	N/A	March 2017
79	Core Wash Station #2	Baghouse (CU08)	0.338 tons/hr.	135.0 ton core sand/yr.	N/A	March 2019
Emission Group 3 – Casting & Molding						
50	Pouring and Cooling	Baghouse (CU08)	15.0 ton gray iron/hr.	80,000 ton gray iron/yr	1 MMBtu/hr	March 2017
53	Shakeout Conveyor	Baghouse (CU06 & CU08)	15.0 ton gray iron/hr.	80,000 ton gray iron/yr.	N/A	January 2017
59	Forced Air Cooler	Baghouse (CU08)	15.0 ton gray iron/hr.	80,000 ton gray iron/yr.	N/A	January 2017
Emission Group 4 – Fettling Shop						
60	Sorting Conveyor	Baghouse (CU11)	15.0 ton gray iron/hr.	80,000 ton gray iron/yr.	N/A	December 2016

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

Emission Unit	Description	BACT Control Device	Maximum Hourly Capacity	PSD Operating Limitations	Maximum Burner Capacity (MMBtu/hr)	Const. Commenced
61	Steel Shot Blasting #1	Baghouse (CU11)	15.0 ton gray iron/hr. & 4.40 lb. shot/hr. each	80,000 ton gray iron/yr. & 15,928 lbs. of shot/yr	N/A	April 2017
63	Fettling Baghouse Waste Dust Silo	Bin Vent Filter (CU12)	0.38 tons of dust/hr.	3,323 tons of dust/yr.	N/A	November 2016
64	Auto Grinding #1	Baghouse (CU11)	7.5 ton gray iron/hr.	40,000 ton gray iron/yr.	N/A	February 2019
65	Auto Grinding #2		7.5 ton gray iron/hr.	40,000 ton gray iron/yr.	N/A	2026
77	Snag Grinder #1	Fabric Filter (CU21)	7.5 ton gray iron/hr.	40,000 ton gray iron/yr.	N/A	April 2017
78	Snag Grinder #2	Fabric Filter (CU22)	7.5 ton gray iron/hr.	40,000 ton gray iron/yr.	N/A	April 2017
Emission Group 5 – Machining Shop						
66	Machining Lines (9)	Cartridge Filters (CU13a thru h) & Paint Booth Filter (sec) (CU 17)	7.5 ton gray iron/hr.	80,000 ton gray iron/yr.	N/A	Line 3: 4/17; Line 4: 5/18; Line 2: 5/18; Line 1: 8/18; ConMet 1: 9/18; Line 5: 11/18; Line 6: 2/19; Line 7: 3/19
67	Perforation Line #2 (Drilling & Milling)	Cartridge Filters (CU13i & j) & Paint Booth Filter (sec) (CU 17)	7.5 ton gray iron/hr.	40,000 ton gray iron/yr.	N/A	ConMet 2 9/18 Perf 2 4/19

Description: The processes listed above are considered to meet the definition of Foundry Operations, as defined in 40 CFR 63.10906, which means all process equipment and practices used to produce metal castings for shipment, including: Mold or core making and coating; scrap

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

handling and preheating; metal melting and inoculation; pouring, cooling, and shakeout; shotblasting, grinding, and other metal finishing operations; and sand handling.

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)(bbbbb), 40 C.F.R. 63.10880 through 63.10906, Tables 1 through 4 (Subpart ZZZZZ), *National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources*

1. **Operating Limitations:**
   a. *Metallic scrap management program.* For each segregated metallic scrap storage area, bin or pile, the permittee shall comply with the materials acquisition requirements in 40 CFR 63.10855(a)(1) or (2). The permittee shall keep a copy of the material specifications onsite and readily available to all personnel with material acquisition duties, and provide a copy to each of the scrap providers. The permittee may have certain scrap subject to 40 CFR 63.10885(a)(1) and other scrap subject to 40 CFR 63.10885(a)(2) at the facility provided the metallic scrap remains segregated until charge make-up. [40 CFR 63.10885(a)]
      i. *Restricted metallic scrap.* The permittee shall prepare and operate at all times according to written material specifications for the purchase and use of only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, chlorinated plastics, or free liquids. For the purpose of 40 CFR 63, Subpart ZZZZZ, "free liquids" is defined as material that fails the paint filter test by EPA Method 9095B, "Paint Filter Liquids Test" (revision 2), November 2004 (incorporated by reference—see 40 CFR 63.14). The requirements for no free liquids do not apply if the permittee can demonstrate that the free liquid is water that resulted from scrap exposure to rain. Any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed and/or cleaned to the extent practicable such that the materials do not include lead components, mercury switches, chlorinated plastics, or free organic liquids can be included in this certification. [40 CFR 63.10885(a)(1)]
      ii. *General iron and steel scrap.* The permittee shall prepare and operate at all times according to written material specifications for the purchase and use of only iron and steel scrap that has been depleted (to the extent practicable) of organics and HAP metals in the charge materials used by the iron and steel foundry. The materials specifications must include at minimum the information specified in 40 CFR 63.10885(a)(2)(i). [40 CFR 63.10885(a)(2)]
         1) Specifications for metallic scrap materials charged to a scrap preheater or metal melting furnace to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids. [40 CFR 63.10885(a)(2)(i)]

   b. *Mercury requirements.* For scrap containing motor vehicle scrap, the permittee shall procure the scrap pursuant to one of the compliance options in 40 CFR 63.10885(b)(1), (2), or (3) for each scrap provider, contract, or shipment. For scrap that does not contain motor

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

vehicle scrap, the permittee shall procure the scrap pursuant to the requirements in 40 CFR 63.10885(b)(4) for each scrap provider, contract, or shipment. The permittee may have one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision. [40 CFR 63.10885(b)]

i. *Site-specific plan for mercury switches.* The permittee shall comply with the requirements in 40 CFR 63.10885(b)(1)(i) through (v). [40 CFR 63.10885(b)(1)]
   1) The permittee shall include a requirement in the scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap. [40 CFR 63.10885(b)(1)(i)]
   2) The permittee shall prepare and operate according to a plan demonstrating how the facility will implement the scrap specification in 40 CFR 63.10885(b)(1)(i) for removal of mercury switches. The permittee shall submit the plan to the Division for approval. The permittee shall operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the Division or delegated authority within 60 days following disapproval of a plan. The permittee shall request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the Division. The Division may change the approval status of the plan upon 90-days written notice based upon the semiannual report or other information. The plan must include: [40 CFR 63.10885(b)(1)(ii)]
      A. A means of communicating to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from the scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268). The plan must include documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Division, the permittee shall provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols; [40 CFR 63.10885(b)(1)(ii)(A)]
      B. Provisions for obtaining assurance from scrap providers motor vehicle scrap provided to the facility meet the scrap specification; [40 CFR 63.10885(b)(1)(ii)(B)]
      C. Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and [40 CFR 63.10885(b)(1)(ii)(C)]
      D. Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components) if needed, based on the results of procedures implemented in 40 CFR 63.10885(b)(1)(ii)(C)). [40 CFR 63.10885(b)(1)(ii)(D)]

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

3) The permittee shall require each motor vehicle scrap provider to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to the facility during the previous year and the basis for the estimate. The Division may request documentation or additional information at any time. [40 CFR 63.10885(b)(1)(iii)]
4) The permittee shall establish a goal for each scrap supplier to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under 40 CFR 63.10855(b)(1) may require only the removal of convenience light switch mechanisms, the Division will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal. [40 CFR 63.10885(b)(1)(iv)]
5) For each scrap provider, the permittee shall submit semiannual progress reports to the Division that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches removed, and certification that the removed mercury switches were recycled at RCRA-permitted facilities or otherwise properly managed pursuant to RCRA subtitle C regulations referenced in 40 CFR 63.10885(b)(1)(ii)(A). This information can be submitted in aggregate form and does not have to be submitted for each shipment. The Division may change the approval status of a site-specific plan following 90-days' notice based on the progress reports or other information. [40 CFR 63.10885(b)(1)(v)]

c. The permittee shall comply with the pollution prevention management practices in 40 CFR 63.10885 and 63.10886, the requirements in 40 CFR 63.10895(b) through (e), and the requirements in 40 CFR 63.10896 through 63.10900 [40 CFR 63.10895(a)]

d. The permittee shall prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in 40 CFR 63.10895. The permittee shall maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan must contain the following information: [40 CFR 63.10896(a)]
   i. General facility and contact information; [40 CFR 63.10896(a)(1)]
   ii. Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart; [40 CFR 63.10896(a)(2)]
   iii. Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in 40 CFR 63.10897(d)(2). [40 CFR 63.10896(a)(3)]
   iv. Identity and estimated quantity of the replacement parts that will be maintained in inventory; and [40 CFR 63.10896(a)(4)]
   v. Procedures for operating and maintaining a CPMS in accordance with manufacturer's specifications. [40 CFR 63.10896(a)(5)]

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

e. The permittee may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in 40 CFR 63.10896(a)(1) through (5) to demonstrate compliance with the requirements for an O&M plan. [40 CFR 63.10896(b)]

f. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.10896(c)]

g. The permittee shall not exceed the yearly operating limitations listed in the table above on a rolling 12-month basis. [401 KAR 51:017]

h. For EUs 19, 20, 21, 35A and 35B, the permittee shall limit the pneumatic conveying of sand from truck to silo, to a total of 125 hours per year. [401 KAR 51:017]

i. The permittee shall prepare and maintain for EUs 05, 06, 15, 18, 44, 45 and 47 within 90 days of startup, a good combustion and operation practices plan (GCOP) that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing CO, VOC, PM, PM_{10}, and $PM_{2.5}$ emissions. Any revisions 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:
   Refer to **4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements, 6. Specific Reporting Requirements,** and **7. Specific Control Equipment Operating Conditions.**

j. The permittee shall operate a capture and collection system for each emission unit listed above. Each capture and collection system shall meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists. Except for EU60, EU61, EU64, EU65, EU66, and EU67, each emission unit listed above shall maintain 100% capture efficiency at all times. EU60, EU61, EU62, EU64, EU65, EU66, and EU67 shall maintain 98% capture efficiency at all times. [401 KAR 51:017]

k. The permittee shall ensure that the building removal efficiency for PM, PM_{10} and $PM_{2.5}$ in the building that houses the emission units listed above is at least 90%. [401 KAR 51:017]

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

Compliance Demonstration Method:
Compliance with **1. Operating Limitations (i)** and **(j)** shall be demonstrated by completing the testing in **3. Testing Requirements (i),** submitting the report required in **6. Specific Reporting Requirements (c)** and monitoring according to **7. Specific Control Requirements (d).**

l. The permittee shall ensure that any building vent louvers shall remain closed to maintain negative pressure in the foundry building. [401 KAR 51:017]

m. The permittee shall install a natural gas burner along the conveyor downstream of each pouring station (EU50 and EU51). These burners shall be oriented such that they ignite the vents of the mold assemblies in the event that they are not already burning. [401 KAR 51:017]

n. The permittee shall operate and maintain the BACT control devices identified in the table above at all times that any associated process vented to the control device is operating. [401 KAR 51:017]

2. Emission Limitations:

a. The permittee shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 30 percent. [40 CFR 63.10895(e); 401 KAR 51:017]

i. For the purposes of 40 CFR 63, Subpart ZZZZZ and the limit above: *Fugitive emissions* means any pollutant released to the atmosphere that is not discharged through a system of equipment that is specifically designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. *Fugitive emissions* include pollutants released to the atmosphere through windows, doors, vents, or other building openings. *Fugitive emissions* also include pollutants released to the atmosphere through other general building ventilation or exhaust systems not specifically designed to capture pollutants at the source. [40 CFR 63.10906]

Compliance Demonstration Method:
Refer to **3. Testing Requirements, 4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements, 6. Specific Reporting Requirements,** and **7. Specific Control Equipment Operating Conditions**.

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

Compliance Demonstration Method:
Refer to **4. Monitoring Requirements (d)** for opacity compliance demonstration.

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

c. ***Mass Emission Standard*:** The permittee shall not cause, suffer, allow or permit the emission into the open air from a control device or stack associated with 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 weights < 0.5 tons/hour: $E=2.34$
ii. For process weights < 30 tons/hour: $E=3.59P^{0.62}$
iii. For process weights ≥ 30 tons/hour: $E=17.31P^{0.16}$

Where:
E is the rate of the emission in lb/hour
P is the process weight rate in tons/hour

Compliance Demonstration Method:
Compliance with the hourly particulate emission limitations in 401 KAR 59:010, Section 3(2) is assumed when compliance with the limitations in **2. Emission Limitations (d)** and **Section D(5)** is demonstrated and natural gas is used as fuel for combustion sources.

d. The permittee shall not exceed the emission limitations for PM, PM_{10} and $PM_{2.5}$ specified in the following table, on a 12-month rolling basis: [401 KAR 51:017]

Emission Unit	Description	BACT Control Device	BACT for PM	BACT for PM_{10}	BACT for $PM_{2.5}$
Emission Group 01 – Melt Shop					
EU17	Melt and Core/Mold Baghouse Waste Dust Silo	Bin Vent Filter (CU02)	0.0030 gr/dscf; 0.015 lb/hr; 0.068 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.068 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.068 ton/yr
Emission Group 02 – Sand Plant					
EU19	Mold Silica Sand Silo	Bin Vent Filter (CU03)	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr
EU20	Blend Silo	Bin Vent Filter (CU04)	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr
EU21	Bentonite Silo	Bin Vent Filter (CU05)	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr
EU35A	Core Silica Sand Silo A	Bin Vent Filter (CU19)	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr

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

Emission Unit	Description	BACT Control Device	BACT for PM	BACT for PM_{10}	BACT for $PM_{2.5}$
EU35B	Core Silica Sand Silo B	Bin Vent Filter (CU20)	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.001 ton/yr
EU57	Sand Plant Baghouse Waste Sand Silo	Bin Vent Filter (CU10)	0.0030 gr/dscf; 0.015 lb/hr; 0.068 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.068 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.068 ton/yr
Emission Group 04 – Fettling Shop					
EU63	Fettling Baghouse Waste Dust Silo	Bin Vent Filter (CU12)	0.0030 gr/dscf; 0.015 lb/hr; 0.068 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.068 ton/yr	0.0030 gr/dscf; 0.015 lb/hr; 0.068 ton/yr

e. The permittee shall not exceed the emission limitations for VOC specified in the following table, on a 12-month rolling basis: [401 KAR 51:017]

Emission Unit	Description	BACT Control Device	BACT for VOC
Emission Group 03 – Casting & Molding			
EU53	Shakeout Conveyor	None	0.528 lb/ton gray iron; 24.18 ton/yr

f. The permittee shall not exceed the emission limitations for CO specified in the following table, on a 12-month rolling basis: [401 KAR 51:017]

Emission Unit	Description	BACT Control Device	BACT for CO
Emission Group 03 – Casting & Molding			
EU53	Shakeout Conveyor	None	1.00 lb/ton gray iron; 25.3 lb/hr

Compliance Demonstration Method:
Refer to **3. Testing Requirements, 4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements, 6. Specific Reporting Requirements, and 7. Specific Control Equipment Operating Conditions.**

g. Refer to **SECTION D** for group PSD limits for PM, PM_{10}, $PM_{2.5}$, VOC and CO, and source-wide HAP emission limitations.

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

3. Testing Requirements:

a. The permittee shall conduct each opacity test for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and 40 CFR 63, Subpart ZZZZZ, Table 1. [40 CFR 63.10898(h)]

b. The permittee shall conduct subsequent performance tests to demonstrate compliance with the opacity limit in 40 CFR 63.10895(e) no less frequently than every 6 months and each time the permittee makes a process change likely to increase fugitive emissions. [40 CFR 63.10898(i)]

c. In the performance test report, the permittee shall certify that the capture system operated normally during the performance test. [40 CFR 63.10898(j)]

d. Fugitive emissions from buildings or structures housing any iron and steel foundry emissions sources subject to opacity limit in 40 CFR 63.10895(e), the permittee shall: [40 CFR 63, Subpart ZZZZZ, Table 1(2)]

   i. Using a certified observer, conduct each opacity test according to EPA Method 9 (40 CFR part 60, appendix A-4) and 40 CFR 63.6(h)(5) [40 CFR 63, Subpart ZZZZZ, Table 1(2)(a)]

      1) The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(a)(i)]

      2) During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the opacity test such that the opacity observations are recorded during the PM or total metal HAP performance tests. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(a)(ii)]

   ii. As alternative to Method 9 performance test, conduct visible emissions test by Method 22 (40 CFR part 60, appendix A-7). The test is successful if no visible emissions are observed for 90 percent of the readings over 1 hour. If VE is observed greater than 10 percent of the time over 1 hour, then the facility must conduct another performance test as soon as possible, but no later than 15 calendar days after the Method 22 test, using Method 9 (40 CFR part 60, appendix A-4) [40 CFR 63, Subpart ZZZZZ, Table 1(2)(b)]

      1) The observer may identify a limited number of openings or vents that appear to have the highest visible emissions and perform observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single observation for the entire building or structure may be performed, if the fugitive release points afford such an observation. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(b)(i)]

      2) During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the visible emissions test such that the observations are recorded during the PM or total metal HAP performance tests. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(b)(ii)]

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

e. *Test Methods and Procedures*. Except as provided in 401 KAR 50:045, performance tests used to demonstrate compliance with 401 KAR 59:010 Section 3, shall be conducted according to the following methods. Kentucky Methods 50 and 150(F-1) and other methods are filed by reference in 401 KAR 50:015. [401 KAR 59:010, Section 4]
   i. Reference Method 5 for the emission rates of particulate matter and the associated moisture content. [401 KAR 59:010, Section 4(1)]
   ii. Reference Method 1 for sample and velocity traverses. [401 KAR 59:010, Section 4(2)]
   iii. Reference Method 2 for velocity and volumetric flow rate. [401 KAR 59:010, Section 4(3)]
   iv. Reference Method 3 for gas analysis. [401 KAR 59:010, Section 4(4)]
   v. Reference Method 9 for opacity of continuous emissions. [401 KAR 59:010, Section 4(5)]
   vi. For Kentucky Method 50 or Reference Method 5, Reference Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least sixty (60) minutes and the minimum sample volume shall be 0.85 dscm (thirty (30) dscf) except that smaller sampling time or volumes, when necessitated by process variables or other factors, may be approved by the cabinet. [401 KAR 59:010, Section 4(7)]

f. 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 as required by the Division.

g. For EU53, the permittee shall perform individual initial performance testing according to 401 KAR 50:055 and every 5 years thereafter. This testing shall be used to demonstrate compliance with the individual BACT limitations in **2. Emission Limitations.** The testing shall also develop emission factors in pounds of pollutant per ton of gray iron for CO and VOC according to following test methods: [401 KAR 51:017]
   i. 40 CFR 60, Appendix A, Method 10 for CO;
   ii. 40 CFR 60, Appendix A, Method 25 for VOC;
   iii. Or an alternate test method as approved by the Division.

h. The permittee shall, the subsequent stack tests required by **3. Testing Requirements (g),** verify the direction of airflow through both the largest building wall opening closest to each process and the largest opening of each hood and exhaust pickup point, is inward using a smoke tube and the following procedures: [401 KAR 51:017]
   i. The direction of airflow shall be monitored for at least 1 hour, with checks made no more than 10 minutes apart.
   ii. The volumetric flow rate shall be monitored during the test.

i. Refer to **SECTION D** for group testing requirements.

4. Specific Monitoring Requirements:

a. The permittee shall make monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the

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

equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The permittee shall repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. The permittee shall record the date and results of each inspection and the date of repair of any defect or deficiency. [40 CFR 63.10897(e)]

b. In the event of an exceedance of an established emissions limitation (including an operating limit), the permittee shall restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. The permittee shall record the date and time corrective action was initiated, the corrective action taken, and the date corrective action was completed. [40 CFR 63.10897(g)]

c. The permittee shall monitor the following for each emission unit: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation
   ii. Monthly and 12-month rolling process weight (tons);
   iii. The 3-hour average emission rate in lb/hr of PM, PM_{10}, $PM_{2.5}$, CO, and VOC for each process with an emission limitation in **2. Emission Limitation (d), (e),** or **(f)**, calculated monthly.
   iv. The 12-month rolling total emission rate in ton/yr of PM, PM_{10}, $PM_{2.5}$, CO, and VOC for each process with an emission limitation in **2. Emission Limitations (d), (e),** or **(f),** calculated monthly.

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

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

5. Specific Recordkeeping Requirements:

a. In addition to the records required by 40 CFR 63.10(b)(2)(iii) and (vi) through (xiv) and (b)(3), the permittee shall keep records of the information specified in 40 CFR 63.10899(b)(1) through (15). [40 CFR 63.10899(b)]
   i. The permittee must keep records of the written materials specifications according to 40 CFR 63.10885(a) and records that demonstrate compliance with the requirements for restricted metallic scrap in 40 CFR 63.10885(a)(1) and/or for the use of general scrap in 40 CFR 63.10885(a)(2) and for mercury in 40 CFR 63.10885(b)(1) through (3), as applicable. The permittee must keep records documenting compliance with 40 CFR

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

63.10885(b)(4) for scrap that does not contain motor vehicle scrap. [40 CFR 63.10899(b)(1)]

ii. If the permittee is subject to the requirements for a site-specific plan for mercury under 40 CFR 63.10885(b)(1), the permittee shall: [40 CFR 63.10899(b)(2)]
   1) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and [40 CFR 63.10899(b)(2)(i)]
   2) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports shall include a certification that the permittee has conducted periodic inspections or taken other means of corroboration as required under 40 CFR 63.10885(b)(1)(ii)(C). The permittee shall identify which option in 40 CFR 63.10885(b) applies to each scrap provider, contract, or shipment. The permittee may include this information in the semiannual compliance reports required under 40 CFR 63.10899(c). [40 CFR 63.10899(b)(2)(ii)]

iii. If the permittee is subject to the option for approved mercury programs under 40 CFR 63.10885(b)(2), the permittee shall maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If the scrap provider is a broker, the permittee shall maintain records identifying each of the broker's scrap suppliers and documenting the scrap supplier's participation in an approved mercury switch removal program. [40 CFR 63.10899(b)(3)]

iv. The permittee shall keep records of monthly metal melt production for each calendar year. [40 CFR 63.10899(b)(6)]

v. The permittee shall keep a copy of the operation and maintenance plan as required by 40 CFR 63.10896(a) and records that demonstrate compliance with plan requirements. [40 CFR 63.10899(b)(7)]

vi. If the permittee uses emissions averaging, the permittee shall keep records of the monthly metal melting rate for each furnace at the iron and steel foundry, and records of the calculated pounds of PM or total metal HAP per ton of metal melted for the group of all metal melting furnaces required by 40 CFR 63.10897(h). [40 CFR 63.10899(b)(8)]

vii. If applicable, the permittee shall keep records for bag leak detection systems as follows: [40 CFR 63.10899(b)(9)]
   1) Records of the bag leak detection system output; [40 CFR 63.10899(b)(9)(i)]
   2) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and [40 CFR 63.10899(b)(9)(ii)]
   3) The date and time of all bag leak detection system alarms, and for each valid alarm, the time the permittee initiated corrective action, the corrective action taken, and the date on which corrective action was completed. [40 CFR 63.10899(b)(9)(iii)]

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

viii. The permittee shall keep records of capture system inspections and repairs as required by 40 CFR 63.10897(e). [40 CFR 63.10899(b)(10)]
ix. The permittee shall keep records demonstrating conformance with the specifications for the operation of CPMS as required by 40 CFR 63.10897(f). [40 CFR 63.10899(b)(11)]
x. The permittee shall keep records of corrective action(s) for exceedances and excursions as required by 40 CFR 63.10897(g). [40 CFR 63.10899(b)(12)]
xi. The permittee shall record the results of each inspection and maintenance required by 40 CFR 63.10897(a) for PM control devices in a logbook (written or electronic format). The permittee shall keep the logbook onsite and make the logbook available to the Administrator upon request. The permittee shall keep records of the information specified in 40 CFR 63.10899(b)(13)(i) through (iii). [40 CFR 63.10899(b)(13)]
    1) The date and time of each recorded action for a fabric filter, the results of each inspection, and the results of any maintenance performed on the bag filters. [40 CFR 63.10899(b)(13)(i)]
xii. The permittee must keep the following records for each failure to meet an emissions limitation (including operating limit), work practice standard, or operation and maintenance requirement in 40 CFR 63, Subpart ZZZZZ. [40 CFR 63.10899(b)(15)]
    1) Date, start time, and duration of each failure. [40 CFR 63.10899(b)(15)(i)]
    2) List of the affected sources or equipment for each failure, 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. [40 CFR 63.10899(b)(15)(ii)]
    3) Actions taken to minimize emissions in accordance with 40 CFR 63.10896(c), and any corrective actions taken to return the affected unit to its normal or usual manner of operation. [40 CFR 63.10899(b)(15)(iii)]

b. The permittee shall retain records of the qualitative visual observations required by 4**.** **Specific Monitoring Requirements (d)**, 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]

c. The permittee shall maintain records of the following for each emission unit: [401 KAR 52:020, Section 10]
    i. Monthly hours of operation;
    ii. Monthly and 12-month rolling total process weight (tons);
    iii. The 3-hour average emission rate of PM, PM_{10}, $PM_{2.5}$, CO and VOC for each process with an emission limitation in **2. Emission Limitations (d), (e),** or **(f)** calculated monthly.
    iv. The 12-month rolling total emission rate of PM, PM_{10}, $PM_{2.5}$, CO, and VOC for each process with an emission limitation in **2. Emission Limitations (d), (e),** or **(f)** calculated monthly.
    v. SDSs for all materials used.

d. The permittee shall maintain a copy of the GCOP plan required by **1. Operating Limitations (i)** as well as any revisions. [401 KAR 51:017]

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

e. The permittee shall maintain records of any time that EUs 05, 06, 15, 18, 44, 45 or 47 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]

f. The permittee shall maintain records of the calculations required in **SECTION D.**

g. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

a. The permittee shall submit semiannual compliance reports to the semiannual compliance reports to the EPA via the CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/) according to 40 CFR 63.10899(c). The reports must include the information specified in 40 CFR 63.10899(c)(1) through (3) and, as applicable, 40 CFR 63.10899(c)(4) through (9). [40 CFR 63.10899(c)]
   i. Company name and address. [40 CFR 63.10899(c)(1)]
   ii. 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 63.10899(c)(2)]
   iii. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.10899(c)(3)]
   iv. If there were no deviations from any emissions limitations (including operating limits, pollution prevention management practices, or operation and maintenance requirements), a statement that there were no deviations from the emissions limitations, pollution prevention management practices, or operation and maintenance requirements during the reporting period. [40 CFR 63.10899(c)(4)]
   v. For each affected source or equipment for which there was a deviation from an emissions limitation (including an operating limit, pollution prevention management practice, or operation and maintenance requirement) that occurs at an iron and steel foundry during the reporting period, the compliance report must contain the information specified in 40 CFR 63.10899(c)(6)(i) through (iii). The requirement in 40 CFR 63.10899(c)(6) includes periods of startup, shutdown, and malfunction. [40 CFR 63.10899(c)(6)]
      1) A list of the affected source or equipment and the total operating time of each emissions source during the reporting period. [40 CFR 63.10899(c)(6)(i)]
      2) For each deviation from an emissions limitation (including an operating limit, pollution prevention management practice, or operation and maintenance requirement) that occurs at an iron and steel foundry during the reporting period, report: [40 CFR 63.10899(c)(6)(ii)]
         A. The date, start time, duration (in hours), and cause of each deviation (characterized as either startup, shutdown, control equipment problem, process problem, other known cause, or unknown cause, as applicable) and the corrective action taken; and [40 CFR 63.10899(c)(6)(ii)(A)]
         B. 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. [40 CFR 63.10899(c)(6)(ii)(B)]

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

3) A summary of the total duration (in hours) of the deviations that occurred during the reporting period by cause (characterized as startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes) and the cumulative duration of deviations during the reporting period across all causes both in hours and as a percent of the total source operating time during the reporting period. [40 CFR 63.10899(c)(6)(iii)]

vi. For each continuous monitoring system (including a CPMS or CEMS) used to comply with the emissions limitation or work practice standard in this subpart that was inoperable or out-of-control during any portion of the reporting period, the permittee shall include the information specified in 40 CFR 63.10899(c)(7)(i) through (vi). The requirement in 40 CFR 63.10899(c)(7) includes periods of startup, shutdown, and malfunction. [40 CFR 63.10899(c)(7)]

1) A brief description of the continuous monitoring system, including manufacturer and model number. [40 CFR 63.10899(c)(7)(i)]
2) The date of the latest continuous monitoring system certification or audit. [40 CFR 63.10899(c)(7)(ii)]
3) A brief description and the total operating time of the affected source or equipment that is monitored by the continuous monitoring system during the reporting period. [40 CFR 63.10899(c)(7)(iii)]
4) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period. [40 CFR 63.10899(c)(7)(iv)]
5) For each period for which the continuous monitoring system was inoperable or out-of-control during the reporting period, report: [40 CFR 63.10899(c)(7)(v)]
   A. The date, start time, and duration (in hours) of the deviation; [40 CFR 63.10899(c)(7)(v)(A)]
   B. The type of deviation (inoperable or out-of-control); and [40 CFR 63.10899(c)(7)(v)(B)]
   C. The cause of deviation (characterized as monitoring system malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and unknown causes, as applicable) and the corrective action taken. [40 CFR 63.10899(c)(7)(v)(C)]
6) A summary of the total duration (in hours) of the deviations that occurred during the reporting period by cause (characterized as monitoring system malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and unknown causes) and the cumulative duration of deviations during the reporting period across all causes both in hours and as a percent of the total source operating time during the reporting period. [40 CFR 63.10899(c)(7)(vi)]

vii. Identification of which option in 40 CFR 63.10885(b) applies. If the permittee complies with the mercury requirements in 40 CFR 63.10885(b) by using one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision different, provide an identification of which option in 40 CFR 63.10885(b) applies to each scrap provider, contract, or shipment. [40 CFR 63.10899(c)(8)]

viii. If the permittee is subject to the requirements for a site-specific plan for mercury under 40 CFR 63.10885(b)(1), include: [40 CFR 63.10899(c)(9)]

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

1) The number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered; [40 CFR 63.10899(c)(9)(i)]
2) A certification that the recovered mercury switches were recycled at RCRA-permitted facilities; and [40 CFR 63.10899(c)(9)(ii)]
3) A certification that the permittee has conducted periodic inspections or taken other means of corroboration as required under 40 CFR 63.10885(b)(1)(ii)(C). [40 CFR 63.10899(c)(9)(iii)]

b. Within 60 days after the date of completing each performance test required by 40 CFR 63, Subpart ZZZZZ, the permittee must submit the results of the performance test following the procedures specified in 40 CFR 63.10899(e)(1) through (3). [40 CFR 63.10899(e)]

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

7. Specific Control Equipment Operating Conditions:

a. For EUs 17, 19, 20, 21, 35A, 35B, 57, and 63, the permittee shall install, calibrate, maintain and operate, according to the manufacturer's specifications, bin vent filters designed to achieve the BACT limits in **2. Emission Limitations (d)**. The permittee shall make the records available for inspection by the Division. [401 KAR 51:017]

b. For all emission units, other than those identified in **7. Specific Control Equipment Operating Conditions (a)**, the permittee shall install, calibrate, maintain and operate, according to manufacturer's specifications, fabric filters designed to achieve the BACT limits in **SECTION D(5)**. The permittee shall make the records available for inspection by the Division. [401 KAR 51:017]

c. Refer to **SECTION E** for control device requirements pursuant to 40 CFR 63, Subpart ZZZZZ and 401 KAR 51:017.

d. The permittee shall operate the control devices associated with each emission units at all times that the emission unit is operating. [401 KAR 51:017]

e. The permittee shall install, operate, and maintain a Sulfuric Acid Scrubber for control of amine gas emitted from the PUCB Core Machines (EU39-EU40). [401 KAR 51:017]

f. For each baghouse, the permittee shall continuously monitor the inlet volumetric flow rate in the stack and maintain it at ±10% or above the level measured during the testing required by **3. Testing Requirements (h)**.

g. The permittee shall install, calibrate, maintain and operate, according to manufacturer's specifications, a monitoring device (differential pressure gauges or manometers) to determine the pressure drop across each baghouse, at a minimum, once a shift during the operation of the unit. A permanent label displaying the operating range established for each baghouse shall be posted next to the selected instrument. [401 KAR 51:017]

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

COATING OPERATIONS

Emission Group 06 – Coating

Description: Three (3) paint booths that apply coatings to finished parts. EU 68 & 69 apply a zinc paint to each part, EU71 applies a zinc solution. Each of these paint booths are equipped with electrostatic spray nozzles that achieve at least 70% transfer efficiency.

EU68 Paint Line #3
Manufacturer: Sturm Maschinenbau
Model: ZS16
Construction Commenced: September 2018
Maximum Throughput: 9.0 lb post-induction coating/hr
1.0 lbs of thinner/hr
Controls: Paint Booth Filter (CU14)

EU69 Paint Line #2
Manufacturer: Sturm Maschinenbau
Model: ZS16
Construction Commenced: November 2017
Maximum Throughput: 9.0 lb post-induction coating/hr
1.00 lbs of thinner/hr
Controls: Paint Booth Filter (CU15)

EU71 Paint Line #1
Manufacturer: Sturm Maschinenbau
Model: ZS16
Construction Commenced: March 2017
Maximum Throughput: 5.5 lb pre-induction coating/hr
Controls: Paint Booth Filter (CU17)

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality*
401 KAR 59:010, *New process operations*
401 KAR 59:225, *New miscellaneous metal parts and products surface coating operations*

STATE-ORIGIN REQUIREMENTS:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

PRECLUDED REGULATIONS:
40 CFR 63, Subpart HHHHHH, *National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources.*

1. **Operating Limitations:**
   a. The permittee shall only use coatings with a VOC content of less than three and five-tenths (3.5) lb/gal of coating (0.42 kg/l), excluding water or exempt solvent or both, delivered to

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

applicators associated with air or items subject to outdoor or harsh exposure or extreme environmental conditions. [401 KAR 59:225, Section 6(1)(b); 401 KAR 51:017]

b. The permittee shall only use post-induction coatings with a solids content of less than 0.87 lb/lb of coating delivered to the applicators. [401 KAR 51:017]

c. The permittee shall only use pre-induction coatings with a solids content of less than 0.35 lb/lb of coating delivered to the applicators [401 KAR 51:017]

d. The amount of exempt solvent shall be subtracted from the amount of coatings, just like water, with the ultimate value of interest being the mass of VOC per unit volume of coating less exempt solvent or water or both. [401 KAR 59:225, Section 4(6)]

e. The permittee shall not use any spray-applied coating that contains any individual compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd) that are an Occupational Safety and Health Administration (OSHA)-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) at a concentration greater than 0.1 percent by mass, or greater than 1.0 percent by mass for any other individual compound of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd). For the purpose of determining whether materials used contain compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), the permittee may rely on formulation data provided by the manufacturer or supplier, such as the material safety data sheet (MSDS), as long as it represents each compound of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd) in the material that is present at 0.1 percent by mass or more for compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd) that are OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd). [To preclude 40 CFR 63, Subpart HHHHHH]

f. The permittee shall limit the throughput through EU68 and EU69 to a combined 63.25 tons/yr of post-induction coating (coating and thinner) on a rolling 12-month basis. [401 KAR 51:017]

g. The permittee shall limit the throughput through EU71 to 15.5 tons/yr of pre-induction coating on a rolling 12-month basis. [401 KAR 51:017]

h. The permittee shall limit thinner usage to a combined 12.88 tons/yr of thinner on a rolling 12-month basis. [401 KAR 51:017]

i. The permittee shall, maintain and implement a work practice plan to minimize VOC emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, all coating operations. The plan shall specify practices and procedures to ensure that, at a minimum, the following elements are implemented: [401 KAR 51:017]
   i. All VOC-containing coatings, thinners, cleaning materials, and waste materials shall be stored in closed containers.

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

ii. The risk of spills of VOC-containing coatings, thinners, cleaning materials, and waste materials shall be minimized.
iii. VOC-containing coatings, thinners, cleaning materials, and waste materials shall be conveyed from one location to another in closed containers or pipes.
iv. Mixing vessels which contain VOC-containing coatings and other materials shall be closed except when adding to, removing, or mixing the contents.
v. Emissions of VOC shall be minimized during cleaning of storage, mixing, and conveying equipment.

j. The permittee shall ensure that each paint booth capture system achieves 100% efficiency. The permittee shall demonstrate this by meeting the following requirements: [401 KAR 51:017]
   i. Performing testing according to **3. Testing Requirements (f).**
   ii. Ensuring all coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off and coating curing and drying occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.
   iii. The direction of the air flow at all times shall be into the enclosure; and either:
      1) The average facial velocity of air through all natural draft openings in the enclosure shall be at least 200 feet per minute; or
      2) The pressure drop across the enclosure shall be at least 0.007-inch water, as established in Method 204 of appendix M to 40 CFR part 51.

k. The permittee shall maintain the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit and maintain the direction of air flow into the enclosure at all times. [401 KAR 51:017]

Compliance Demonstration Method:
Refer to **3. Testing Requirements, 4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements, 6. Specific Reporting Requirements**, and **7. Specific Control Equipment Operating Conditions.**

2. Emission Limitations:

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

Compliance Demonstration Method:
Refer to **4. Monitoring Requirements(c)** for opacity compliance demonstration.

b. ***Mass Emission Standard*:** The permittee shall not cause, suffer, allow or permit the emission into the open air from a control device or stack associated with any affected facility which is in excess of 2.34 lb/hr. [401 KAR 59:010, Section 3(2)]

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

Compliance Demonstration Method:
Compliance with the hourly particulate emission limitations in 401 KAR 59:010, Section 3(2) is assumed when compliance with the limitations in **2. Emission Limitations(c) & (d)** is demonstrated.

c. For EU68 and EU69, the permittee shall not cause or contribute to combined total emissions of PM, PM_{10}, and $PM_{2.5}$ that, on a rolling 12-month basis, equal or exceed 0.202 tons of PM, PM_{10}, or $PM_{2.5}$ per year. [401 KAR 51:017]

d. For EU71, the permittee shall not cause or contribute to total emissions of PM, PM_{10}, and $PM_{2.5}$ that, on a rolling 12-month basis, equal or exceed 1.133 tons of PM, PM_{10}, or $PM_{2.5}$ per year. [401 KAR 51:017]

e. For EU68 and EU69, the permittee shall not cause or contribute to combined total emissions of VOC (including contributions from thinner usage) that, on a rolling 12-month basis, equal or exceed 19.425 tons of VOC per year. [401 KAR 51:017]

f. For EU71, the permittee shall not cause or contribute to total emissions of VOC that, on a rolling 12-month basis, equal or exceed 3.244 tons of VOC per year. [401 KAR 51:017]

Compliance Demonstration Method:
Refer to **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **7. Specific Control Equipment Operating Conditions.**

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

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

h. Refer to **SECTION D** for source-wide HAP emission limitations.

3. Testing Requirements:

a. If deemed necessary by the Cabinet, the Cabinet shall obtain samples of the coatings used at an affected facility to verify that the coatings meet the requirements in 401 KAR 59:225, Section 6. Appendix A to 40 CFR 60, Method 24, which has been incorporated by reference

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

in 401 KAR 50:015, shall be used as applicable to determine compliance of the coatings unless the Cabinet determines that other methods would be more appropriate. [401 KAR 59:225, Section 4(4)]

b. Except as provided in 401 KAR 50:045, performance tests used to demonstrate compliance with 401 KAR 59:010, Section 3 shall be conducted according to the following methods. Kentucky Methods 50 and 150(F-1) and other methods are filed by reference in 401 KAR 50:015. [401 KAR 59:010, Section 4]
   i. Reference Method 5 for the emission rates of particulate matter and the associated moisture content. [401 KAR 59:010, Section 4(1)]
   ii. Reference Method 1 for sample and velocity traverses. [401 KAR 59:010, Section 4(2)]
   iii. Reference Method 2 for velocity and volumetric flow rate. [401 KAR 59:010, Section 4(3)]
   iv. Reference Method 3 for gas analysis. [401 KAR 59:010, Section 4(4)]
   v. Reference Method 9 for opacity of continuous emissions. [401 KAR 59:010, Section 4(5)]
   vi. For Reference Method 5, Reference Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least sixty (60) minutes and the minimum sample volume shall be 0.85 dscm (thirty (30) dscf) except that smaller sampling time or volumes, when necessitated by process variables or other factors, may be approved by the Cabinet. [401 KAR 59:010, Section 4(7)]

c. For emission units EU68, EU69 and EU71, the permittee shall perform individual performance testing no later than December 31, 2029. This testing shall be used to determine emission factors in pounds of pollutant per pound of coating for PM, PM_{10}, $PM_{2.5}$, and VOC according to following test methods: [401 KAR 51:017]
   i. 40 CFR 60, Appendix A, Method 5 for PM;
   ii. 40 CFR 51, Appendix M, Method 201A for PM_{10} and $PM_{2.5}$;
   iii. 40 CFR 60, Appendix A, Method 24 for VOC;
   iv. Or an alternate test method as approved by the Division.

d. The permittee shall determine the mass fraction of organic HAP for each material used, on a monthly basis or when the formulation of the coating changes, by using one of the options below:
   i. The permittee may use 40 CFR 63, Appendix A, Method 311 for determining the mass fraction of organic HAP.
   ii. For coatings, the permittee may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP.
   iii. The permittee may rely on information other than that generated by the test methods specified above, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other compounds. If there is a disagreement between such information and results of a test conducted according to the terms above, then the test method results will take

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precedence, unless after consultation, the facility demonstrates to the satisfaction of the Division that the facility's data are correct. If a range of values is given for the mass fraction, the permittee shall use the maximum of the range in the calculation of emissions.

e. The permittee shall determine the density of each material used during the month from test results using ASTM Method D1475-98 (Reapproved 2003), "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method D1475-98 (Reapproved 2003) test results and the supplier's or manufacturer's information, the test results will take precedence unless after consultation, the facility demonstrates to the satisfaction of the Division that the facility's data are correct.

f. The permittee shall demonstrate that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE.

g. 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 as required by the Division.

4. <u>Specific Monitoring Requirements</u>:

a. The permittee shall determine the volume in gallons of each material used during each month by measurement or usage records. [401 KAR 52:020, Section 10]

b. The permittee shall monitor and record the direction of air flow, and either: [401 KAR 52:020, Section 10]
   i. The facial velocity of air through all natural draft openings according to the following requirements for each flow measurement device, or:
      1) The permittee shall locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.
      2) The permittee shall reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.
      3) The permittee shall conduct a flow sensor calibration check at least semiannually.
      4) The permittee shall, at least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.
   ii. The pressure drop across the enclosure according to the following requirements for each flow measurement device:
      1) The permittee shall locate the pressure tap(s) in a position that provides a representative measurement of the pressure drop across each opening that is being monitored.
      2) The permittee shall minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.
      3) The permittee shall check pressure tap plug gauge daily.
      4) The permittee shall check gauge calibration and transducer calibration quarterly.

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5) The permittee shall conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.
6) The permittee shall, at least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

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

d. The permittee shall monitor the following for each emission unit: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation;
   ii. Monthly and 12-month rolling total throughput;
   iii. Monthly and 12-month rolling thinner usage;
   iv. 12-month rolling total emissions of PM, PM_{10}, and $PM_{2.5}$, in tons/yr, calculated monthly according to the following equation:

$$E_{xi} = \left[\frac{\{P_{ij} \times 30\% \times EF_{jx}\}}{2000}\left(1 - B_{jx}\right)\right]$$

$$T_{jx} = \sum_{i-1}^{12} E_{xi}$$

Where:
i = Month
j = Emission Unit;
x = Pollutant (PM, PM10, or PM2.5)
E_{xi} = The actual average monthly emission rate of pollutant *x* from unit *j* during month *i*, in lb/month;
P_{ij} = The actual specific throughput through unit *j* during month *i* in pounds of coating used per month;
EF_{jx} = The corresponding solids content of the coating used in emission unit j or the emission factor determined by a representative performance test conducted according to the requirements of 401 KAR 50:045, within the last (5) years, in pounds of pollutant *x* per pound of paint used;
B_{jx} = Control efficiency (%) of any control device at emission unit *j* for pollutant *x*;
T_{jx} = Total 12-month rolling emissions of pollutant *x* at emission unit *j* in tons of pollutant *x* per year;
30% = 1 – Transfer Efficiency (70%) of the electrostatic spray nozzles.

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

v. 12-month rolling total emissions of VOC and HAP, in tons/yr, calculated monthly according to the following equation:

$$E_{xi} = \frac{P_{ij} * EF_{jx}}{2000}$$

$$T_{jx} = \sum_{i=1}^{12} E_{xi}$$

Where:

i = Month;

j = Emission Unit;

E_{xi} = The actual average monthly emission rate of pollutant x from unit j during month i in tons of x per month;

P_{ij} = The actual specific throughput through unit j during month i in pounds of coating or thinner used per month;

EF_{jx} = The corresponding uncontrolled emission factor for pollutant x as approved by the most recent permitting action for emission unit j or the emission factor determined by a representative performance test conducted according to the requirements of 401 KAR 50:045, within the last five (5) years, in pounds of pollutant x per pound of paint used;

T_{jx} = Total 12-month rolling emissions of pollutant x at emission unit j in tons of pollutant x per year.

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

5. <u>Specific Recordkeeping Requirements</u>:

a. Daily records shall be maintained by the source for the most recent two (2) year period. These records shall be made available to the Cabinet or the U.S. EPA upon request. The records shall include, but not be limited to, the following: [401 KAR 59:225, Section 4(8)]

i. Applicable administrative regulation number; [401 KAR 59:225, Section 4(8)(a)]

ii. Application method and substrate type; [401 KAR 59:225, Section 4(8)(b)]

iii. Amount and type of adhesive, coating (including catalyst and reducer for multicomponent coatings), or solvent used at each point of application, including exempt compounds; [401 KAR 59:225, Section 4(8)(c)]

iv. The VOC content as applied in each adhesive, coating, or solvent; [401 KAR 59:225, Section 4(8)(d)]

v. The date for each application for adhesive, coating, or solvent; [401 KAR 59:225, Section 4(8)(e)]

vi. The amount of surface preparation, cleanup, or washup solvent (including exempt compounds) used and the VOC content of each; and [401 KAR 59:225, Section 4(8)(f)]

vii. Oven temperature, if applicable [401 KAR 59:225, Section 4(8)(g)]

b. The permittee shall retain records of the qualitative visual observations required by **4. <u>Specific Monitoring Requirements</u> (c)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any

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

corrective action taken including results due to observed emissions. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the following for each emission unit: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation;
   ii. Monthly and 12-month rolling process weight (tons);
   iii. Monthly and 12-month rolling thinner usage;
   iv. Monthly and 12-month rolling total emissions of PM, PM_{10}, $PM_{2.5}$, VOC, and HAP in tons/yr, calculated monthly according to the equation in **4. Specific Monitoring Requirements (b)**.
   v. SDSs for all materials used.

d. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP, the density and the volume fraction of coating solids for each coating, the mass fraction of organic HAP and the density for each thinner, and the mass fraction of organic HAP for each cleaning material.
   ii. If the permittee conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, the permittee shall keep a copy of the complete test report.
   iii. If the permittee uses information provided by the manufacturer or supplier of the material that was based on testing, the permittee shall keep the summary sheet of results provided by the manufacturer or supplier.
   iv. If the permittee uses the results of an analysis conducted by an outside testing lab, the permittee shall keep a copy of the test report. The permittee is not required to obtain the test report or other supporting documentation from the manufacturer or supplier.
   v. A record of the name and volume of each cleaning material used during each month.
   vi. A record of the mass fraction of HAP and VOC for each cleaning material used during each month.
   vii. A record of the density for each cleaning material used during each month.
   viii. The data and documentation used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent.
   ix. Records of the data and calculations used to establish the emission capture and add-on control device operating limits and to document compliance with the operating limitations.
   x. Records of the data and calculations used to determine the transfer efficiency for all coatings.
   xi. A record of the work practice plans required and documentation that the plans are being implemented on a continuous basis. Appropriate documentation may include operational and maintenance records, records of documented inspections, and records of internal audits.
   xii. For each add-on control device and for each continuous parameter monitoring system, a copy of the equipment operating instructions shall be maintained on-site for the life

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

of the equipment in a location readily available to plant operators and inspectors. The permittee may prepare the equipment operating instructions, or they may be provided by the equipment supplier or other third party.

e. Copies of the current work practice plans developed in accordance with **1. Operating Requirements(i)**, as well as plans developed within the preceding 5 years shall be available on-site for inspection and copying by the Division. [401 KAR 52:020, Section 10]

f. The permittee shall keep monthly records of the following. [401 KAR 52:020, Section 10]
   i. For each coating used, a record of the volume used in each month, the mass fraction HAP content, the mass fraction VOC content, the density, and the volume fraction of solids.
   ii. For each thinner used, a record of the volume used in each month, the mass fraction HAP content, the mass fraction VOC content, and the density.
   iii. A record of the calculation of the HAP and VOC emission rate for all coatings and thinners. This record must include all raw data, algorithms, and intermediate calculations. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained.
   iv. A record, for each month, of the calculation of the average monthly mass HAP and VOC content.

g. 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. For all emission units listed above, the permittee shall install, maintain, and operate, according to manufacturer's specifications, fabric filters designed to achieve the BACT limits in **1. Operating Limitations**, and **2. Emission Limitations (c)**. The permittee shall make these records available for inspection by the Division. [401 KAR 51:017]

b. The permittee shall install, calibrate, maintain and operate, according to manufacturer's specifications, a monitoring device (differential pressure gauges or manometers) to determine the pressure drop across each paint booth filter, at a minimum, once a day during the operation of the unit. A permanent label displaying the operating range established for each paint booth shall be posted next to the selected instrument. [401 KAR 51:017]

c. The permittee shall operate the control devices associated with each emission unit at all times that the emission unit is operating. [401 KAR 51:017]

d. The permittee shall install, operate, and maintain each Continuous Parameter Monitoring System (CPMS) for each pressure drop and/or air flow measuring device (e.g. each temperature sensor, pressure drop monitor, etc.) according to the following: [401 KAR 52:020, Section 10]

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i. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period. The permittee shall have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.
ii. The permittee shall determine the average of all recorded readings for each successive 3-hour period of the emission capture system.
iii. The permittee shall record the results of each inspection, calibration, and validation check of the CPMS.
iv. The permittee shall maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.
v. The permittee shall operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating.

e. The permittee shall maintain a log detailing the operation and maintenance of the emission capture system, add-on control devices, and CPMS. [401 KAR 51:017]

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

Emission Group 07 – Emergency Generators > 500 HP

Description: Three diesel fired compression ignition emergency generators: two that generate 750 kW each and one that generates 40 kW. All generators have a displacement of less than 30 liters per cylinder.

EU 72 Emergency Generator #1
Manufacturer: Caterpillar
Model: C27
Construction Commenced: September 2016
Maximum Rating (HP): 1050
Fuel: Diesel
Controls: None

EU 73 Emergency Generator #2
Manufacturer: Caterpillar
Model: C27
Construction Commenced: September 2016
Maximum Rating (HP): 1050
Fuel: Diesel
Controls: None

EU 74 Emergency Generator #3
Manufacturer: Caterpillar
Model: C4
Construction Commenced: September 2016
Maximum Rating (HP): 56
Fuel: Diesel
Controls: None

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration*
401 KAR 60:005, Section 2(2)(dddd), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 8 (Subpart IIII), *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 part 60, Subpart IIII, for compression ignition engines. [40 CFR 63.6590(c)(1)]

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b. The permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 60.4205 over the entire life of the engine. [40 CFR 60.4206]

c. The permittee must 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 must 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 and control device according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]
   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 IIII, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described 40 CFR 60.411(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 IIII 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 the purpose 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 Division 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

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

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 of the following conditions are met: [40 CFR 60.4211(f)(3)(i)]
   A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4211(f)(3)(i)(A)]
   B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR 60.4211(f)(3)(i)(B)]
   C. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [40 CFR 60.4211(f)(3)(i)(C)]
   D. The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR 60.4211(f)(3)(i)(D)]
   E. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine permittee. [40 CFR 60.4211(f)(3)(i)(E)]

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 as follows: [40 CFR 60.4211(g)]
   i. For EU 74: The permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes the emission-related settings in a way that is not permitted by the manufacturer, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action. [40 CFR 60.4211(g)(1)]
   ii. For EU 72 & EU 73: The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control 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-

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

related settings in a way that is not permitted by the manufacturer. The permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter, to demonstrate compliance with the applicable emission standards. [40 CFR 60.4211(g)(3)]

2. Emission Limitations:

a. The permittee shall comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power. [40 CFR 60.4205(b)]

b. The engines listed above shall be certified to meet the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants. [40 CFR 60.4202(a)(2)]

c. The permittee shall not cause or contribute to emissions that, on an individual basis, exceed the values listed in the table below. [401 KAR 51:017]

Emission Unit	PM (g/hp-hr)	PM_{10} (g/hp-hr)	$PM_{2.5}$ (g/hp-hr)	CO (g/hp-hr)	VOC (g/hp-hr)
72	0.149	0.149	0.149	2.60	4.77
73	0.149	0.149	0.149	2.60	4.77
74	0.298	0.298	0.298	3.73	3.50

Compliance Demonstration Method:
The permittee shall comply with the emission standards specified in 40 CFR 60.4205(b), by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b) 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)]

d. Refer to **SECTION D** for source-wide HAP emission limitations.

3. Testing Requirements:

a. If the permittee conducts performance tests pursuant to 40 CFR 60, Subpart IIII, the permittee must do so according to 40 CFR 60.4212(a) through (e). [40 CFR 60.4212]
   i. The performance test shall be conducted according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. [40 CFR 60.4212(a)]
   ii. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c). [40 CFR 60.4212(e)]

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

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

4. Specific Monitoring Requirements:

a. The permittee shall monitor the following for each emission unit: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation and purpose of operation; and
   ii. Monthly diesel fuel usage, in 1000 gallons.

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

5. Specific Recordkeeping Requirements:

a. The permittee must 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 monthly diesel fuel usage, in 1000 gallons, for each emission unit. [401 KAR 52:020, Section 10]

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

6. Specific Reporting Requirements:

a. If the emergency stationary CI ICE with a maximum engine power more than 100 HP operates for the purpose specified 40 CFR 60.4211(f)(3)(i), the permittee shall submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). [40 CFR 60.4214(d)]

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

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

Emission Group 08 – Storage Tanks

EU75 Diesel Storage Tank
Description: A horizontal storage tank which holds diesel fuel.
Construction Commenced: July 2019
Tank Capacity: 1,000 gallons
Maximum Yearly Throughput: 24,000 gallon
Controls: None

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

1. **Operating Limitations:**
   The diesel storage tank (EU75) shall be equipped with a permanent submerged fill pipe. [401 KAR 51:017]

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:**
   None

5. **Specific Recordkeeping Requirements:**
   None

6. **Specific Reporting Requirements:**
   None

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

Emission Group 09 – Roads
Description: Paved Roads within the PSD-prescribed source boundary. This includes emissions from trailer-truck (industrial) traffic only.
Construction Commenced: September 2016
Controls: Vacuum Sweeping

EU76 Paved Roadways
Description:
Length: 0.43 miles
Hours of Operation: 8760 hours/yr

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality*
401 KAR 63:010, *Fugitive emissions*

1. **Operating Limitations:**
   a. The permittee is authorized to operate 0.43 miles of paved roadways (EU76). [401 KAR 51:017]

   b. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished, or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Reasonable precautions shall include, when 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. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
      iv. The maintenance of paved roadways in a clean condition; or [401 KAR 63:010, Section 3(1)(e)]
      v. 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)]

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

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

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

2. Emission Limitations:

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

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

b. More than twenty (20) minutes of emission time during any twenty-four (24) hour period. [401 KAR 63:010, Section 3(2)(b)]

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

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

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

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

5. Specific Recordkeeping Requirements:

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

b. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   1) Qualitative fugitive emissions observations conducted including the date, time, initials of observer, whether any fugitive dust emissions were observed,
   2) Any U.S. EPA Reference Method 22 performed and field records identified in U.S. EPA Reference Method 22.
   3) Any corrective action taken and the results.

c. The permittee shall keep records of the dates that the vacuum sweeping occurred according to **7. Specific Control Equipment Operating Conditions** and these records shall be made available to the Division upon request.

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

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

6. **Specific Reporting Requirements:**
   Refer to **Section F** for general reporting requirements**.**

7. **Specific Control Equipment Operating Conditions:**
   The permittee shall vacuum sweep the pavement at least weekly, except during recent rain events, or as needed in the event of a spill. [401 KAR 51:017]

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

EU82 Rust Preventative Application
Maximum Capacity: 0.013 tons of Castrol Rustillo 4175/hr
Construction Commenced: 03/2017
Controls: None

Description:
Application of Rustillo 4175 applied to selected castings prior to storage

APPLICABLE REGULATIONS:
401 KAR 59:225, *New miscellaneous metal parts and products surface coating operations*
401 KAR 51:017, *Prevention of significant deterioration of air quality*

1. **Operating Limitations:**
   a. The permittee shall reduce coating waste by storing VOC-containing coatings in closed containers, ensuring that it is kept closed as long as possible, while minimizing spills of VOC-containing materials. [401 KAR 51:017]

   b. The permittee shall only use coatings with a VOC content of less than three and five-tenths (3.5) lb/gal of coating (0.42 kg/l), excluding water or exempt solvent or both, delivered to applicators associated with air or items subject to outdoor or harsh exposure or extreme environmental conditions. [401 KAR 59:225, Section 6(1)(b); 401 KAR 51:017]

   c. The amount of exempt solvent shall be subtracted from the amount of coatings, just like water, with the ultimate value of interest being the mass of VOC per unit volume of coating less exempt solvent or water or both. [401 KAR 59:225, Section 4(6)]

2. **Emission Limitations:**
   The permittee shall not cause or contribute to total emissions of VOC that, on a rolling 12-month basis, equal or exceed 1.0 tons of VOC per year. [401 KAR 51:017]

3. **Testing Requirements:**
   a. If deemed necessary by the Cabinet, the Cabinet shall obtain samples of the coatings used at an affected facility to verify that the coatings meet the requirements in 401 KAR 59:225, Section 6. Appendix A to 40 CFR 60, Method 24, which has been incorporated by reference in 401 KAR 50:015, shall be used as applicable to determine compliance of the coatings unless the Cabinet determines that other methods would be more appropriate. [401 KAR 59:225, Section 4(4)]

   b. The permittee shall perform a mass balance test to determine the mass transfer percentage.

   c. 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 determine the volume in gallons used during each month by measurement or usage records. [401 KAR 52:020, Section 10]

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

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

5. Specific Recordkeeping Requirements:

a. Daily records shall be maintained by the source for the most recent two (2) year period. These records shall be made available to the Cabinet or the U.S. EPA upon request. The records shall include, but not be limited to, the following: [401 KAR 59:225, Section 4(8)]
   i. Applicable administrative regulation number; [401 KAR 59:225, Section 4(8)(a)]
   ii. Application method and substrate type; [401 KAR 59:225, Section 4(8)(b)]
   iii. Amount and type of adhesive, coating (including catalyst and reducer for multicomponent coatings), or solvent used at each point of application, including exempt compounds; [401 KAR 59:225, Section 4(8)(c)]
   iv. The VOC content as applied in each adhesive, coating, or solvent; [401 KAR 59:225, Section 4(8)(d)]
   v. The date for each application for adhesive, coating, or solvent; [401 KAR 59:225, Section 4(8)(e)]
   vi. The amount of surface preparation, cleanup, or washup solvent (including exempt compounds) used and the VOC content of each; and [401 KAR 59:225, Section 4(8)(f)]
   vii. Oven temperature, if applicable [401 KAR 59:225, Section 4(8)(g)]

b. The permittee shall maintain records of the volume in gallons used during each month by measurement or usage records. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the SDS and VOC content of the material used. [401 KAR 52:020, Section 10]

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

6. Specific Reporting Requirements:

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

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

ROTARY SPRUE CLEANING AND PERFORATION FOUNDRY OPERATIONS

EU 83 Rotary Sprue Cleaner and Return Conveyors

Description: Cleaning of sprue and return of metallics and sand for separation.
Manufacturer/Model: Didion Model RS-200 SM Mark 5
Construction Commenced: June 2022
Maximum Capacity: 10.0 tons sand per hour: 6.6 tons sprue/metallics per hour
Controls: Baghouse (CU08)

EU 84 Perforation Line #1

Description: Machining of casting from storage, which will be transferred to the paint lines or moved to the warehouse.
Construction Commenced: June 2022
Maximum Capacity: 7.5 tons castings per hour; 40,000 tons castings per year
Controls: Perforation Line #1 Cartridge Collector (CU23)

APPLICABLE REGULATIONS:
401 KAR 59:010, *New process operations*
401 KAR 63:002, Section 2(4)(bbbbb), 40 C.F.R. 63.10880 to 63.10906, Tables 1 to 4 (Subpart ZZZZZ), *National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources*

1. **Operating Limitations:**
   a. The permittee shall comply with the pollution prevention management practices in 40 CFR 63.10885 and 63.10886, the requirements in 40 CFR 63.10895(b) through (e), and the requirements in 40 CFR 63.10896 through 63.10900 [40 CFR 63.10895(a)]

   b. 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. [40 CFR 63.10896(c)]

2. **Emission Limitations:**
   a. The permittee shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 30 percent. [40 CFR 63.10895(e)]
      i. For the purposes of 40 CFR 63, Subpart ZZZZZ and the limit above: *Fugitive emissions* means any pollutant released to the atmosphere that is not discharged through a system of equipment that is specifically designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. *Fugitive emissions* include pollutants released to the atmosphere through windows, doors, vents, or other building openings. *Fugitive emissions* also include pollutants released to the atmosphere through other general building ventilation or exhaust systems not specifically designed to capture pollutants at the source. [40 CFR 63.10906]

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

Compliance Demonstration Method:
Refer to **3. Testing Requirements, 4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements, 6. Specific Reporting Requirements,** and **7. Specific Control Equipment Operating Conditions**.

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

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

c. ***Mass Emission Standard*:** The permittee shall not cause, suffer, allow or permit the emission into the open air from a control device or stack associated with 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 weights < 0.5 tons/hour: $E=2.34$
   ii. For process weights < 30 tons/hour: $E=3.59P^{0.62}$
   Where:
   E is the rate of the emission in lb/hour
   P is the process weight rate in tons/hour

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

3. Testing Requirements:

a. The permittee shall conduct each opacity test for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and 40 CFR 63, Subpart ZZZZZ, Table 1. [40 CFR 63.10898(h)]

b. The permittee shall conduct subsequent performance tests to demonstrate compliance with the opacity limit in 40 CFR 63.10895(e) no less frequently than every 6 months and each time the permittee makes a process change likely to increase fugitive emissions. [40 CFR 63.10898(i)]

c. In the performance test report, the permittee shall certify that the capture system operated normally during the performance test. [40 CFR 63.10898(j)]

d. Fugitive emissions from buildings or structures housing any iron and steel foundry emissions sources subject to opacity limit in 40 CFR 63.10895(e), the permittee shall: [40 CFR 63, Subpart ZZZZZ, Table 1(2)]

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

i. Using a certified observer, conduct each opacity test according to EPA Method 9 (40 CFR part 60, appendix A-4) and 40 CFR 63.6(h)(5) [40 CFR 63, Subpart ZZZZZ, Table 1(2)(a)]
   1) The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(a)(i)]
   2) During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the opacity test such that the opacity observations are recorded during the PM or total metal HAP performance tests. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(a)(ii)]

ii. As alternative to Method 9 performance test, conduct visible emissions test by Method 22 (40 CFR part 60, appendix A-7). The test is successful if no visible emissions are observed for 90 percent of the readings over 1 hour. If VE is observed greater than 10 percent of the time over 1 hour, then the facility must conduct another performance test as soon as possible, but no later than 15 calendar days after the Method 22 test, using Method 9 (40 CFR part 60, appendix A-4) [40 CFR 63, Subpart ZZZZZ, Table 1(2)(b)]
   1) The observer may identify a limited number of openings or vents that appear to have the highest visible emissions and perform observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single observation for the entire building or structure may be performed, if the fugitive release points afford such an observation. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(b)(i)]
   2) During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the visible emissions test such that the observations are recorded during the PM or total metal HAP performance tests. [40 CFR 63, Subpart ZZZZZ, Table 1(2)(b)(ii)]

e. *Test Methods and Procedures*. Except as provided in 401 KAR 50:045, performance tests used to demonstrate compliance with 401 KAR 59:010 Section 3, shall be conducted according to the following methods. Kentucky Methods 50 and 150(F-1) and other methods are filed by reference in 401 KAR 50:015. [401 KAR 59:010, Section 4]
   i. Reference Method 5 for the emission rates of particulate matter and the associated moisture content. [401 KAR 59:010, Section 4(1)]
   ii. Reference Method 1 for sample and velocity traverses. [401 KAR 59:010, Section 4(2)]
   iii. Reference Method 2 for velocity and volumetric flow rate. [401 KAR 59:010, Section 4(3)]
   iv. Reference Method 3 for gas analysis. [401 KAR 59:010, Section 4(4)]
   v. Reference Method 9 for opacity of continuous emissions. [401 KAR 59:010, Section 4(5)]
   vi. For Kentucky Method 50 or Reference Method 5, Reference Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least sixty (60) minutes and the minimum sample volume shall be 0.85 dscm (thirty (30) dscf) except that smaller sampling time or volumes, when

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

necessitated by process variables or other factors, may be approved by the cabinet. [401 KAR 59:010, Section 4(7)]

f. 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 as required by the Division.

4. <u>Specific Monitoring Requirements</u>:

a. The permittee shall monitor the following for each emission unit: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation;
   ii. Monthly total process weight (tons).

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

c. The permittee shall install, calibrate, maintain, and operate a pressure drop monitoring device to monitor the differential pressure across each fabric filter. The permittee shall ensure that the monitored value is maintained within the range specified by the manufacturer or the range established during the most recent performance test. The permittee shall monitor the differential pressure across the baghouse once per day during all times of operation. [401 KAR 52:020, Section 10]

d. The permittee shall make monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The permittee shall repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. The permittee shall record the date and results of each inspection and the date of repair of any defect or deficiency. [40 CFR 63.10897(e)]

e. In the event of an exceedance of an established emissions limitation (including an operating limit), the permittee shall restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. The permittee shall record the date and time corrective action was initiated, the corrective action taken, and the date corrective action was completed. [40 CFR 63.10897(g)]

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the following for each emission unit: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation;
   ii. Monthly total process weight (tons).

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

c. The permittee shall maintain records of the monitored differential pressure across each fabric filter. [401 KAR 52:020, Section 10]

d. In addition to the records required by 40 CFR 63.10(b)(2)(iii) and (vi) through (xiv) and (b)(3), the permittee shall keep records of the information specified in 40 CFR 63.10899(b)(1) through (15). [40 CFR 63.10899(b)]
   i. The permittee shall keep records of corrective action(s) for exceedances and excursions as required by 40 CFR 63.10897(g). [40 CFR 63.10899(b)(12)]
   ii. The permittee must keep the following records for each failure to meet an emissions limitation (including operating limit), work practice standard, or operation and maintenance requirement in 40 CFR 63, Subpart ZZZZZ. [40 CFR 63.10899(b)(15)]
      1) Date, start time, and duration of each failure. [40 CFR 63.10899(b)(15)(i)]
      2) List of the affected sources or equipment for each failure, 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. [40 CFR 63.10899(b)(15)(ii)]
      3) Actions taken to minimize emissions in accordance with 40 CFR 63.10896(c), and any corrective actions taken to return the affected unit to its normal or usual manner of operation. [40 CFR 63.10899(b)(15)(iii)]

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

6. Specific Reporting Requirements:

a. The permittee shall submit semiannual compliance reports to the semiannual compliance reports to the EPA via the CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/) according to 40 CFR 63.10899(c). The reports must include the information specified in 40 CFR 63.10899(c)(1) through (3) and, as applicable, 40 CFR 63.10899(c)(4) through (9). [40 CFR 63.10899(c)]

b. Within 60 days after the date of completing each performance test required by 40 CFR 63, Subpart ZZZZZ, the permittee must submit the results of the performance test following the procedures specified in 40 CFR 63.10899(e)(1) through (3). [40 CFR 63.10899(e)]

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

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

7. <u>Specific Control Equipment Operating Conditions</u>:
Refer to **Section E.**

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

EU 85 Natural Gas Generator #1
Manufacturer: Cummins
Model: C20N6HC
Construction Commenced: November 2024
Maximum Rating (HP): 27
Fuel: Natural Gas
Controls: None

Description: Spark ignition, 4-stroke lean-burn emergency engine that is to serve as back-up power generator for the computer server room.

APPLICABLE REGULATIONS:
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 Part 63 by meeting the requirements of 40 CFR Part 60, Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR Part 63. [40 CFR 63.6590(c)(1)]

   b. The permittee shall operate and maintain 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]

   a. 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

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

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 of the following conditions are met: [40 CFR 60.4243(d)(3)(i)]

A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4243(d)(3)(i)(A)]

B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR 60.4243(d)(3)(i)(B)]

C. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [40 CFR 60.4243(d)(3)(i)(C)]

D. The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR 60.4243(d)(3)(i)(D)]

E. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [40 CFR 60.4243(d)(3)(i)(E)]

2. <u>Emission Limitations</u>:

a. The permittee shall comply with the emission standards in Table 1 to 40 CFR 60, Subpart JJJJ for their emergency stationary SI ICE. [40 CFR 60.4233(d)]

Emission Unit	Emission Standards (ppmv at 15% O_2)		
	NO_x	CO	VOC
EU85	10	387	N/A

Note: The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_X + HC. [40 CFR 60, Subpart JJJJ, Table 1, Footnote c]. For purposes of 40 CFR 60, Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included. [40 CFR 60, Subpart JJJJ, Table 1, Footnote d].

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

Compliance Demonstration Method:
The permittee must 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)]
   1. If the permittee operates and maintain 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 604243(a)(1)]
   2. If the permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and the permittee must demonstrate compliance according to 40 CFR 60.4243(a)(2)(i). [40 CFR 604243(a)(2)]
      i. The permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required. [40 CFR 604243(a)(2)(i)]

B. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(d) and according to the requirements specified in 40 CFR 60.4244, as applicable, and according to 40 CFR 60.4243(b)(2)(i). [40 CFR 60.4243(b)(2)]
   1. The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance. [40 CFR 60.4243(b)(2)(i)]

3. <u>Testing Requirements</u>:
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. <u>Specific Monitoring Requirements</u>:

a. The permittee shall install a non-resettable hour meter upon startup of the emergency engine. [40 CFR 63.4237(c)]

b. The permittee shall monitor the monthly hours of operation and purpose of operation for the engine. [401 KAR 52:020, Section 10]

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the annual fuel usage for the engine. [401 KAR 52:030, Section 10]

b. The permittee shall maintain records of the monthly hours of operation and purpose of operation for the engine. [401 KAR 52:020, Section 10]

c. The permittee shall keep records of the information in 40 CFR 60.4245(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)]

d. 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.

Description	Generally Applicable Regulation
There are no listed insignificant activities.	

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, PM_{10}, $PM_{2.5}$, CO, VOC, opacity, and HAP 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.

SOURCEWIDE HAP LIMITS

3. The permittee shall not cause or contribute to source-wide combined HAP emissions that equal or exceed 22.5 tons/year based on a 12-month rolling total as calculated monthly. [Self-imposed to preclude major source status for HAP]

4. The permittee shall not cause or contribute to source-wide individual HAP emissions that equal or exceed 9 tons/year based on a 12-month rolling total as calculated monthly. [Self-imposed to preclude major source status for HAP]

5. The permittee shall not allow the emissions exiting the following control devices to exceed the following: [401 KAR 51:017]

Control Device (Stack)	Emission Units Controlled	Type of Control and Pollutants Controlled	BACT for PM	BACT for PM_{10}	BACT for $PM_{2.5}$
CU01 (ST02)	EUs 01, 05, 06, 07, 08, 09, 10, 13, 15 & 18	Baghouse (PM, PM_{10}, $PM_{2.5}$)	0.0015 gr/dscf; 1.98 lb/hr; 8.68 ton/yr	0.0015 gr/dscf; 1.98 lb/hr; 8.68 ton/yr	0.0015 gr/dscf; 1.98 lb/hr; 8.68 ton/yr
CU06 (ST07)	EUs 22, 23, 24, 29, 30, 31, 32, 53 & 54	Baghouse (PM, PM_{10}, $PM_{2.5}$)	0.002 gr/dscf; 1.75 lb/hr; 7.67 ton/yr	0.002 gr/dscf; 1.75 lb/hr; 7.67 ton/yr	0.002 gr/dscf; 1.75 lb/hr; 7.67 ton/yr
CU07 (ST08)	EUs 39 & 40	Acid Scrubber (PM, PM_{10}, $PM_{2.5}$)	0.0005 gr/dscf; 0.032 lb/hr; 0.138 tpy	0.0005 gr/dscf; 0.032 lb/hr; 0.138 tpy	0.0005 gr/dscf; 0.032 lb/hr; 0.138 tpy
CU08 (ST09)	EUs 33, 36, 39, 40, 44, 45, 50, 51 & 59	Baghouse (PM, PM_{10}, $PM_{2.5}$)	0.0015 gr/dscf; 1.42 lb/hr; 6.24 ton/yr	0.0015 gr/dscf; 1.42 lb/hr; 6.24 ton/yr	0.0015 gr/dscf; 1.42 lb/hr; 6.24 ton/yr
CU11 (ST12)*	EUs 60, 61, 64, 65, 77 & 78	Baghouse (PM, PM_{10}, $PM_{2.5}$)	0.001 gr/dscf; 0.55 lb/hr; 2.42 ton/yr	0.001 gr/dscf; 0.55 lb/hr; 2.42 ton/yr	0.001 gr/dscf; 0.55 lb/hr; 2.42 ton/yr

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

*Primary capture and control for EU 77 and 78 emit from CU21 and CU22 respectively. Secondary capture and control occur through CU11, and emit through ST12

Compliance Demonstration Method:
The permittee shall conduct performance testing on CUs 01, 06, 07, 08, and 11 to demonstrate initial compliance with the BACT limits listed above. The testing shall be performed according to the requirements of 401 KAR 50:055 and repeated every 5 years. The permittee shall use 40 CFR 60, Appendix A, Method 5 for PM, 40 CFR 51, Appendix M, Method 201A/202 for PM_{10} and $PM_{2.5}$, or an alternate test method as approved by the Division.

Continuous compliance will be demonstrated by use of the bag leak detection system required in **SECTION E,** meeting the throughput limits for each process in **SECTION B**, and calculating the monthly and rolling 12-month ton/yr emissions from each group of units, using the following equations:

$$\frac{P_i * EF}{h_i} = H_i$$

And:

$$\sum_{i=1}^{12} H_i * \frac{h_i}{2000} = Y$$

Where:
i = Month
P_i = Monthly throughput for month i in the group of emission units (CUs 01, 06, 08, 11 & 13), (units/month)
EF = The corresponding emission factor for PM, PM_{10}, $PM_{2.5}$ as determined using a representative performance test conducted according to the requirements of 401 KAR 50:045, within the last five (5) years, (lb/unit);
h = The total number of hours operated during month i;
H_i = Total PM, PM_{10}, $PM_{2.5}$ emissions, (lb/hr);
Y = Total rolling 12-month yearly emissions, (tons/year);
Note: This Calculation shall include all emission units that emit PM, PM_{10}, $PM_{2.5}$ within the group.

6. The permittee shall not allow the emissions exiting the following stacks to exceed the following: [401 KAR 51:017]

Stack	Emission Units Combined	BACT for VOC	BACT for CO
ST02	EUs 05, 06, 07, 08, 09, 10, 15 & 18	0.247 lb/ton gray iron 9.48 lb/hr 9.88 ton/yr	1.59 lb/ton gray iron 57.58 lb/hr 63.68 ton/yr
ST07	EUs 22, 23, 24, 29, 30, 31, 32, 53, & 54	0.616 lb/ton gray iron 9.24 lb/hr; 24.64 ton/yr	0.515 lb/ton 7.73 lb/hr 20.6 ton/yr

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Stack	Emission Units Combined	BACT for VOC	BACT for CO
ST08	EUs 39 & 40	4.59 lb/ton core sand 8.39 lb/hr; 15.35 ton/yr	N/A
ST09	EUs 43, 44, 45, 47 & 50	3.561 lb/ton gray iron 54.70 lb/hr; 142.44 ton/yr	6.238 lb/ton gray iron 93.15 lb/hr; 249.52 ton/yr

Compliance Demonstration Method:
The permittee shall conduct performance testing on STs 02, 08 & 09, to demonstrate initial compliance with BACT limits listed above. The testing shall be performed according to the requirements of 401 KAR 50:055 and repeated every 5 years. The permittee shall use 40 CFR 60, Appendix A, Method 10 for CO and 40 CFR 60, Appendix A, Method 25 for VOC, or an alternate test method as approved by the Division. This testing shall also determine emission factors for each group of units in pounds per MMscf of natural gas used, ton of metal poured, number of parts produced, or other appropriate unifying units as approved by the Division, for use in the equation below.

Continuous compliance will be demonstrated by meeting the throughput limits for each process in **SECTION B**, and calculating the lb/hr and rolling 12-month ton/yr emissions from each group of units, using the following equations:

$$\frac{P_i * EF}{h_i} = H_i$$

And:

$$\sum_{i=1}^{12} H_i * \frac{h_i}{2000} = Y$$

Where:
i = Month;
P_i = Monthly throughput for month i in the group of emission units (STs 02, 08 & 09), (units/month);
EF = The corresponding emission factor for CO or VOC as determined using a representative performance test conducted according to the requirements of 401 KAR 50:045, within the last five (5) years, (lb/unit)
h = The total number of hours operated during month i;
H_i = Total CO or VOC emissions, (lb/hr);
Y = Total rolling 12-month yearly emissions, (tons/yr);
Note: This calculation shall include all emission units that emit CO or VOC within the group.

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 Emission Units CUs 01, 06, 08 & 11:**
   a. The permittee shall install, operate, and maintain a bag leak detection system for each negative pressure baghouse or positive pressure baghouse. The permittee shall install, operate, and maintain each bag leak detection system according to the requirements in 40 CFR 63.10897(d)(1) through (3). [40 CFR 63.10897(d)]
      i. Each bag leak detection system must meet the requirements in 40 CFR 63.10897(d)(1)(i) through (vii). [40 CFR 63.10897(d)(1)]
         (1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [40 CFR 63.10897(d)(1)(i)]
         (2) The bag leak detection system sensor must provide output of relative particulate matter loadings and the permittee shall continuously record the output from the bag leak detection system using a strip chart recorder, data logger, or other means. [40 CFR 63.10897(d)(1)(ii)]
         (3) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel. [40 CFR 63.10897(d)(1)(iii)]
         (4) The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points. If the system is equipped with an alarm delay time feature, the permittee shall adjust the alarm delay time. [40 CFR 63.10897(d)(1)(iv)]
         (5) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time. Except, once per quarter, the permittee may adjust the sensitivity of the bag leak detection system to account for seasonable effects including temperature and humidity according to the procedures in the monitoring plan required by 40 CFR 63.10897(d)(2). [40 CFR 63.10897(d)(1)(v)]
         (6) For negative pressure baghouses, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber. [40 CFR 63.10897(d)(1)(vi)]
         (7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 63.10897(d)(1)(vii)]
      ii. The permittee shall prepare a site-specific monitoring plan for each bag leak detection system to be incorporated in the O&M plan. The permittee shall operate and maintain each bag leak detection system according to the plan at all times. Each plan must address all of the items identified in 40 CFR 63.10897(d)(2)(i) through (vi). [40 CFR 63.10897(d)(2)]

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)

(1) Installation of the bag leak detection system. [40 CFR 63.10897(d)(2)(i)]
(2) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established. [40 CFR 63.10897(d)(2)(ii)]
(3) Operation of the bag leak detection system including quality assurance procedures. [40 CFR 63.10897(d)(2)(iii)]
(4) Maintenance of the bag leak detection system including a routine maintenance schedule and spare parts inventory list. [40 CFR 63.10897(d)(2)(iv)]
(5) How the bag leak detection system output will be recorded and stored. [40 CFR 63.10897(d)(2)(v)]
(6) Procedures for determining what corrective actions are necessary in the event of a bag leak detection alarm as required by 40 CFR 63.10897(d)(3). [40 CFR 63.10897(d)(2)(vi)]

iii. In the event that a bag leak detection system alarm is triggered, the permittee shall initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete corrective action as soon as practicable, but no later than 10 calendar days from the date of the alarm. The permittee shall record the date and time of each valid alarm, the time that corrective action is initiated, the corrective action taken, and the date on which corrective action was completed. Corrective actions may include, but are not limited to: [40 CFR 63.10897(d)(3)]
(1) Inspecting the bag house for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions. [40 CFR 63.10897(d)(3)(i)]
(2) Sealing off defective bags or filter media. [40 CFR 63.10897(d)(3)(ii)]
(3) Replacing defective bags or filter media or otherwise repairing the control device [40 CFR 63.10897(d)(3)(iii)]
(4) Sealing off a defective baghouse department. [40 CFR 63.10897(d)(3)(iv)]
(5) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system. [40 CFR 63.10897(d)(3)(v)]
(6) Shutting down the process producing the particulate emissions. [40 CFR 63.10897(d)(3)(vi)]

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].

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

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

in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, shall be defined as follows:
   a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
   b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
   c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.

9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the 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.

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

f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the following addresses:

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

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

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
      (2) The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
      (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
      (4) New requirements become applicable to a source subject to the Acid Rain Program.

      Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

   d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) b].

l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

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

n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) d.].

o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) a.].

SECTION G - GENERAL PROVISIONS (CONTINUED)

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
(1) Applicable requirements that are included and specifically identified in this permit; and
(2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

3. Permit Revisions

a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

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 EUs 15, 65, 77,

SECTION G - GENERAL PROVISIONS (CONTINUED)

78, 79, 82, 83, 84 and 85 in accordance with the terms and conditions of this permit. [V-25-035]

a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, notification of the following:
   (1) The date when construction commenced.
   (2) The date of start-up of the affected facilities listed in this permit.
   (3) The date when the maximum production rate specified in the permit application was achieved.

c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

d. Pursuant to 401 KAR 50:055, Section 2(1)(a), an owner or operator of any affected facility subject to any standard within the administrative regulations of the Division for Air Quality shall demonstrate compliance with the applicable standard(s) within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of such facility. Pursuant to 401 KAR 52:020, Section 3(3)(c), sources that have not demonstrated compliance within the timeframes prescribed in 401 KAR 50:055, Section 2(1)(a), shall operate the affected facility only for purposes of demonstrating compliance unless authorized under an approved compliance plan or an order of the cabinet.

e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.

f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. Testing Requirements

   a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.

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

   c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

   a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

   b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

7. Emergency Provisions

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

(3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
(4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.1-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
(5) This requirement does not relieve the source of other local, state or federal notification requirements.

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

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

8. Ozone Depleting Substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
(1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
(2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
(3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.155.
(5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156 and 40 CFR 82.157.
(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

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

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to U.S. EPA using the RMP* eSubmit software.

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

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None