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

Proposed

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**Nucor Steel Gallatin, LLC**
Mailing Address:	**4831 US Highway 42 West, Ghent, KY 41045**
Source Name:	**Nucor Steel Gallatin LLC**
Mailing Address:	**4831 US Highway 42 West Ghent, KY 41045**
Source Location:	**Same as above**
Permit:	**V-20-015 R3**
Agency Interest:	**1449**
Activity:	**APE20240003**
Review Type:	**Title V, Construction/Operating**
Source ID:	**21-077-00018**
Regional Office:	**Florence Regional Office 8020 Veterans Memorial Drive, Suite 110 Florence, KY 41042 (859) 525-4923**
County:	**Gallatin**
Application Complete Date:	**December 15, 2020**
Issuance Date:	**April 19, 2021**
Revision Date:	
Expiration Date:	**April 19, 2026**

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

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Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action
V-20-015	Minor Revision	APE20190014	9/16/2019	4/19/2021	Add dedicated baghouse for coil cutting
	Renewal	APE20190016	1/8/2020		Renewal
	Minor Revision	APE20200001	2/11/2020		Add alternative monitoring for 40 CFR 63, Subpart CCC
	Minor Revision	APE20200002	3/12/2020		Replacement of EP 09-06 & 09-07
	Minor Revision	APE20200008	12/14/2020		Changes to PGL Line Project
	Significant Revision	APE20200009	12/15/2020		Changes to PSD Melt Shop #2 Project
V-20-015 R1	Minor Revision	APE20210006	8/2/2021	3/13/2022	Add Nucor Tubular Products
	Significant Revision	APE20210008	8/2/2021		Combining Melt Shops emission limits & changes to PSD Melt Shop #2 Project
V-20-015 R2	Significant Revision	APE20220001	3/9/2022	2/16/2024	Incorporation of alternative monitoring req (EP15-02)
	Significant Revision	APE20220007	5/3/2022		Consolidating paved & unpaved roads, modifying slag handling, removal of EPs.
	Minor Revision	APE20220010	4/26/2022		Addition of 2 emerg. generators
	Minor Revision	APE20220017	10/20/2022		Incorporation of Steel Tech units (EU 26) into NSG permit
	Significant Revision	APE20220020	10/20/2022		Changes to Scrap Cutting & Coil Sampling Plasma Cutter
	Significant Revision	APE20220021	11/1/2022		Revising emission rates for the A-Line & B-Line Caster Steam Vents
V-20-015 R3	Minor Revision	APE20240003	11/21/2024		Addition of 2 DRI conveyor bin vents, a part washer, one remetalization unit & removal of EP 02-09

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 has been 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.

Definitions: The following definitions apply to all abbreviations and variables used in this permit:

PT – Total particulate matter
PM_{10} – Particulate matter equal to or smaller than 10 micrometers
CO – Carbon monoxide
NO_x – Nitrogen oxides
SO_2 – Sulfur dioxide
Pb – Lead
VOC – Volatile Organic Compounds
PTE – Potential to Emit
MMBtu/hr – Million British Thermal Units per Hour
EAF – Electric Arc Furnace
LMF – Ladle Metallurgy Furnace
BACT – Best Available Control Technology
U.S. EPA – United States Environmental Protection Agency
Division – Kentucky Division for Air Quality
CEM – Continuous Emission Monitoring
MMcf/yr – Million cubic feet per year
TDS – Total Dissolved Solids
PSD – Prevention of Significant Deterioration of air quality
RICE – Reciprocating Internal Combustion Engines
HP – Horsepower
CI – Compression Ignition
GHG – Greenhouse Gases (CO_2e)
CO_2e – Carbon Dioxide (CO_2) equivalent

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

Group 1

Emission Unit 01 (EU 01) – Melt Shop #1 – 0E1
Emission Unit 10 (EU 10) – Miscellaneous Dust Sources– 0B1 and 0S1 &
Emission Unit 20 (EU 20) – Melt Shop #2

Emission Point #	Unit Name	Maximum Short-Term[5] Capacity	Maximum Long-Term Capacity	Burner Maximum Capacity (MMBtu/hr)	Control Device[1]	Construction Commenced
Emission Unit 01 (EU 01) – Melt Shop #1 – 0E1						
01-01	Twin Shell DC EAF	250 tons steel/hr; 500 lbs fluorspar/ heat	2,000,000 tons steel/yr[2]	4 sidewall burners: 18 MMBtu/hr each 1 door burner: 15 MMBtu/hr 1 sump burner: 10 MMBtu/hr	Baghouse #1	4/1995; Modified 2019
01-02	Continuous Caster (A-Line)	250 tons steel/hr	2,000,000 tons steel/yr[2]	----	Baghouse #1	4/1995
01-03 A	Ladle Metallurgical Furnace	250 tons steel/hr	2,000,000 tons steel/yr[2]	----	Baghouse #2	4/1995
01-04 A, B, C, & D	Ladle Pre-Heaters (4)	---	---	01-04A: 10 MMBtu/hr; 01-04B, C, & D: 27.3 MMBtu/hr, each	Baghouse #2	1995; Modified 2022
01-05	Ladle Dryer	----	----	10 MMBtu/hr	Baghouse #1	2010
01-06 A & B	Tundish Pre-Heaters (2)	----	----	8 MMBtu/hr each	Baghouse #1	1995
01-07 A & B	Tundish Side Pre-Heaters (2) & SEN Pre-Heaters (2)	----	----	1.1 MMBtu/hr each	Baghouse #1	1995
01-08	Tundish Dryers (2) & Mandrel Pre-Heaters (2)	----	----	1.0 MMBtu/hr each	Baghouse #1	1995
01-09	Tundish Preparation	7.1 tons/hr	62,196 tons/yr	----	Baghouse #1 & #2	1995
01-10	Ladle Preparation	42 tons/hr	367,920 tons/yr	----	Baghouse #1 & #2	1995
01-11	Used Refractory Cleanout	72 tons/hr	630,720 tons/yr	----	Baghouse #1 & #2	1995

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

Emission Point #	Unit Name	Maximum Short-Term[5] Capacity	Maximum Long-Term Capacity	Burner Maximum Capacity (MMBtu/hr)	Control Device[1]	Construction Commenced
01-12 A & B	Stirring Stations (4)	250 tons/hr	2,000,000 tons/yr	----	Baghouse #2	1995
01-13	Scrap Cutting from Slag Pot	2 tons/hr	3,822 tons/yr	----	Baghouse #1 & #2	1995
01-14	A-Line Caster Spray Vent	250 tons/hr	2,000,000 tons/yr	----	None	1995
Emission Unit 10 (EU 10) – Miscellaneous Dust Sources– 0B1 and 0S1						
10-06	Melt Shop #1 Baghouse #1 & #2 Dust Silo & Railcar Loading	5.0 tons/hr	35,000 tons/yr[3]	----	Dust Collector/ Enclosure System	4/1993
10-07	Melt Shop #2 Baghouse #3 Dust Silo & Railcar Loading	5.0 tons/hr	35,000 tons/yr[3]	----	Dust Collector/ Passive Bin Vent Filter	2019
Emission Unit 20 (EU 20) – Melt Shop #2						
20-01	Single Shell DC EAF	250 tons steel/hr; 500 lbs fluorspar/ heat	2,000,000 tons steel/yr[2]	4 sidewall burners: 17.1 MMBtu/hr each 1 sump burner: 17.1 MMBtu/hr	Baghouse #3	2019
20-02 A & B	Ladle Metallurgical Furnaces (2)	250 tons steel/hr	2,000,000 tons steel/yr[2]	----	Baghouse #3	2019
20-03	Continuous Caster (B-Line)	500 tons steel/hr	3,500,000 tons steel/yr[3]	----	Baghouse #1 & #2	2019
20-04	Ladle Dryer	----	----	20 MMBtu/hr	Baghouse #1 & #2	2019
20-05 A, B, & C	Horizontal Ladle Pre-Heaters (3)	----	----	27.3 MMBtu/hr each	Baghouse #1 & #2	2019
20-06 A & B	Tundish Pre-Heaters (2)	----	----	12.2 MMBtu/hr each	Baghouse #1 & #2	2019
20-07 A, B, & C	Mandrel Pre-Heaters (4) & Tundish SEN Pre-Heaters (2)	----	----	1.3 MMBtu/hr for Mandrel; 0.34 MMBtu/hr each for SEN	Baghouse #1 & #2	2019

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

Emission Point #	Unit Name	Maximum Short-Term[5] Capacity	Maximum Long-Term Capacity	Burner Maximum Capacity (MMBtu/hr)	Control Device[1]	Construction Commenced
20-08	Melt Shop #2 Tundish Preparation (Incl. dump station, relining station, and skull torch cutting)	2.82 tons/hr for dump station; 7.05 tons/hr for relining station	24,703 tons/yr[3] for dump station; 61,758 tons/yr[3] for relining station	0.013 MMBtu/hr each for 9 torches	Baghouse #3	2019
20-09	Melt Shop #2 Ladle Preparation (Incl. dump station and relining station)	33.7 tons/hr for dump station; 42.2 tons/hr for relining station	295,387 tons/yr[3] for dump station; 369,234 tons/yr[3] for relining station	----	Baghouse #3	2019
20-10	Melt Shop #2 Used Refractory Cleanout	72 tons/hr	630,720 tons/yr[3]	----	Baghouse #3	2019
20-11	B-Line Caster Spray Vent	500 tons steel/hr	3,500,000 tons steel/yr[3]	----	None	2019
20-15	Melt Shop #2 Scrap Bucket Charge	250 tons/hr	1,925,000 ton/yr[3]	----	Baghouse #3	2021
20-16	Melt Shop #2 Safety Lining Dryer for Tundishes (direct fired)	----	----	3 burners at 1.3 MMBtu/hr, each	Baghouse #3	2021
20-17	Melt Shop #2 Vertical Ladle Pre-Heater at LMF (direct fired)	----	----	27.3 MMBtu/hr	Baghouse #3	2021

[1]Note: Baghouse #1 & #2 are ducted to a single stack.
[2]Note: Operation of Melt Shops #1 & #2 is limited to a combined 3.5 million tons/yr, however, each melt shop's individual capability is identified here, to provide operational flexibility in meeting that limit.
[3]Note: Long-term capacities of these units are bottlenecked by the upstream operational limit on the melt shops.
[4]Note: Long-term capacity is limited by an operational limitation, below.
[5]Note: Short term capacity is based on a 30 day average.

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

EU 01 Controls Description:
Controls: Two Positive Pressure Baghouses (Baghouse #1 and #2). Baghouse #1 was installed in April 1993; Baghouse #2 was installed in April 2005. Emissions that escape the direct capture systems are captured by canopy hoods located on the ceiling of the melt shop and ducted to the existing baghouse 1 or baghouse 2. The emissions from baghouse #1 & # 2 are ducted together and combined into a single stack before release into the atmosphere.

EU 20 Controls Description:
Controls: Negative Pressure Baghouse #3 was constructed in 2019. Melt Shop #2 is equipped with canopy hoods to capture and vent emissions that are not captured by the direct shell evacuation system to the new baghouse #3

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality*
401 KAR 59:010, *New process operations*
401 KAR 60:005, Section 2(1), **40 C.F.R. 60.1 to 60.19, Table 1 (Subpart A),** *General Provisions*
401 KAR 60:005, Section 2(2)(jj), **40 C.F.R. 60.270a to 60.276a (Subpart AAa),** *Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983 and on or before May 16, 2022* applies to EP 01-01, 10-06, 10-07, and 20-01
401 KAR 63:002, Section 2(4)(aaaaa), 40 C.F.R. 63.10680 to 63.10692, Table 1 (Subpart YYYYY), *National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities*
401 KAR 63:010, *Fugitive emissions*
40 CFR 64, *Compliance Assurance Monitoring*

1. Operating Limitations:

a. Steel production rate shall not exceed a combined 3,500,000 tons of steel cast/year on a rolling 12-month basis with the first period beginning on the issuance date of the final permit (V-14-013 R5) from the EAFs (EP 01-01 and EP 20-01) as measured as the total cast tons at the outlet of the A-Line Continuous Caster (EP 01-03) and B-Line Continuous Caster (EP 20-03) combined. Simultaneous arc operation in both shells of EP 01-01 and simultaneous casting operations in both casters (EP 01-02 and EP 20-03) is prohibited. [401 KAR 51:017]

Compliance Demonstration Method:
The permittee shall demonstrate compliance with **1. Operating Limitations (a)**, monthly, by determining the total tons of steel produced at the outlet of each caster, only one of which can operate at a time, by using the following equation:

$$L = S \times W \times T \times 0.269 \frac{lb}{in^3} \times 60 \ \frac{min}{hr} \times \frac{1 \ ton}{2000 \ lb}$$

Where:
L = Steel cast, ton/hr
S = Cast speed, in/min

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

W = Cast width, in
T = Cast thickness, in
Density of steel = 0.269 lb/in^3

b. The permittee shall not exceed 500 pounds of fluorspar per heat for each of EP 01-01 and EP 20-01. [401 KAR 51:017]

c. Scrap substitutes shall be limited to the following general categories (may be added to the EP 01-01 and EP 20-01): hot briquetted iron (HBI), beach iron, pig iron, direct reduced iron (DRI), drop out box material, and roll grinding swarf. [401 KAR 51:017]

d. The permittee shall use commercially available low residual, pre-processed, and inspected scrap. [401 KAR 51:017]

e. The permittee may add firearms and other metal materials confiscated by law enforcement agencies to the EAF (EP 01-01 and EP 20-01) charge.

Compliance Demonstration Method:
For **1. Operating Limitations (b)** through **(e)**, refer to **4. Specific Monitoring Requirements (r)** and **5. Specific Recordkeeping Requirements (g).**

f. The permittee shall properly maintain and operate the sidewall burners (located within the EP 01-01 and EP 20-01 shell) in accordance with manufacturer's specifications. [401 KAR 51:017]

Compliance Demonstration Method:
Refer to **5. Specific Recordkeeping Requirements (g).**

g. The permittee shall take reasonable precautions to control particulate emissions from the handling of the used refractory materials. [401 KAR 63:010, Section 3]

Compliance Demonstration Method:
Refer to **5. Specific Recordkeeping Requirements (c)**.

h. The permittee shall operate control equipment and/or implement work practice standards as reasonable precautions to prevent particulate matter from becoming airborne and exiting any opening from the melt shops (EU01 and EU20) into the open air. Reasonable precautions include, but are not limited to: [401 KAR 63:010; 401 KAR 51:017]
   i. Downdraft and/or plastic strip air curtains at melt shops (EU01 and EU20) openings with fugitive particulate emissions;
   ii. Opening the following doors only for pass-through traffic: M30, M32, M37 and M35;
   iii. Only opening the door labeled M28 when ladle tear-out operations are underway in that area;
   iv. The Melt Shop #2 scrap door shall be maintained at all times with a plastic strip air curtain covering the top 15 feet of the opening;

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

v. The door labeled A SCRAP shall be maintained at all times with a plastic strip air curtain covering the top 15 feet of the opening; and
vi. After removal from the furnaces, all slag shall be transported to the designated slag processing area.

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

i. *Chlorinated plastics, lead, and free organic liquids.* For metallic scrap utilized in the EAF, the permittee shall comply with the requirements in either 40 CFR 63.10685(a)(1) or (2). The permittee may have certain scrap at the facility subject to 40 CFR 63.10685(a)(1) and other scrap subject to 40 CFR 63.10685(a)(2) provided the scrap remains segregated until charge make-up. [40 CFR 63.10685(a)]

j. *Pollution prevention plan.* The Pollution Prevention Plan (PPP), set forth in Appendix B of this permit, shall be implemented for metallic scrap selection and inspection to minimize the amount of chlorinated plastics, lead, and free organic liquids that are charged to the furnace. The permittee shall operate according to the approved plan at all times. The permittee may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by Division. The permittee shall keep a copy of the plan onsite, and the permittee shall provide training on the PPP's requirements to all plant personnel with materials acquisition or inspection duties. Each plan must include the information in 40 CFR 63.10685(a)(1)(i) through (iii). [40 CFR 63.10685(a)(1); 401 KAR 51:017]

Compliance Demonstration Method:
For **1. Operating Limitations (i)** and **(j)**, refer to **5. Specific Recordkeeping Requirements (d)** and **(g).**

k. *Restricted metallic scrap.* The permittee shall not charge to a furnace metallic scrap that contains scrap from motor vehicle bodies, engine blocks, oil filters, oily turnings, machine shop borings, transformers or capacitors containing polychlorinated biphenyls, lead-containing components, chlorinated plastics, or free organic liquids. This restriction does not apply to any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed or cleaned to the extent practicable such that the materials do not include lead components, chlorinated plastics, or free organic liquids. This restriction does not apply to motor vehicle scrap that is charged to recover the chromium or nickel content if the permittee meets the requirements in 40 CFR 63.10685(b)(3). [40 CFR 63.10685(a)(2); 401 KAR 51:017]

l. For scrap containing motor vehicle scrap, the permittee shall procure the scrap pursuant to one of the compliance options in 40 CFR 63.10685(b)(1), (2), or (3), for each scrap provider, contract, or shipment. [40 CFR 63.10685(b); 401 KAR 51:017]
   i. *Site-specific plan for mercury switches*. The permittee shall comply with the requirements in 40 CFR 63.10685(b)(1)(i) through (v). [40 CFR 63.10685(b)(1)]

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

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 63.10685(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 63.10685(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 this 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 within 60 days following disapproval of a plan. The permittee may 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 compliance report or other information. The plan shall include: [40 CFR 63.10685(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 that 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 63.10685(b)(1)(ii)(A)]
   B. Provisions for obtaining assurance from scrap providers that motor vehicle scrap provided to the facility meet the scrap specification; [40 CFR 63.10685(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 63.10685(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 63.10685(b)(1)(ii)(C). [40 CFR 63.10685(b)(1)(ii)(D)]
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 63.10685(b)(1)(iii)]
4) The permittee shall establish a goal for each scrap provider to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under 40

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

CFR 63.10685(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 63.10685(b)(1)(iv)]

ii. *Option for approved mercury programs.* The permittee shall certify in the notification of compliance status that the permittee participates in and purchases motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator based on the criteria in 40 CFR 63.10685(b)(2)(i) through (iii). If motor vehicle scrap is purchased from a broker, the permittee shall certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator based on the criteria in 40 CFR 63.10685(b)(2)(i) through (iii). The National Vehicle Mercury Switch Recovery Program and the Vehicle Switch Recovery Program mandated by Maine State law are EPA-approved programs under 40 CFR 63.10685(b)(2) unless and until the Administrator disapproves the program (in part or in whole) under 40 CFR 63.10685(b)(2)(iii). [40 CFR 63.10685(b)(2)]

1) The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches; [40 CFR 63.10685(b)(2)(i)]
2) The program has a goal to remove at least 80 percent of mercury switches from the motor vehicle scrap the scrap provider processes. Although a program approved under 40 CFR 63.10685(b)(2) may require only the removal of convenience light switch mechanisms, the Administrator 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; and [40 CFR 63.10685(b)(2)(ii)]
3) The program sponsor agrees to submit progress reports to the Administrator no less frequently than once every year 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 recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA (40 CFR parts 261 through 265 and 268). The progress reports must be based on a database that includes data for each program participant; however, data may be aggregated at the State level for progress reports that will be publicly available. The Administrator may change the approval status of a program or portion of a program (e.g., at the State level) following 90-days notice based on the progress reports or on other information. [40 CFR 63.10685(b)(2)(iii)]
4) The permittee shall develop and maintain onsite a plan demonstrating the manner through which the facility is participating in an EPA-approved program. [40 CFR 63.10685(b)(2)(iv)]

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

A. The plan shall include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility. [40 CFR 63.10685(b)(2)(iv)(A)]
B. The permittee shall provide in the plan 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 63.10685(b)(2)(iv)(B)]
C. The permittee shall conduct periodic inspections or provide other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles. [40 CFR 63.10685(b)(2)(iv)(C)]

iii. *Option for specialty metal scrap.* The permittee shall certify in the notification of compliance status that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches. [40 CFR 63.10685(b)(3)]

m. For scrap that does not contain motor vehicle scrap, the permittee shall procure the scrap pursuant to the following requirements 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. For scrap not subject to the requirements in 40 CFR 63.10685(b)(1) through (3), the permittee shall certify in the annual compliance certification and maintain records of documentation that this scrap does not contain motor vehicle scrap. [40 CFR 63.10685(b)(4)]

Compliance Demonstration Method:
For **1. Operating Limitations (k)** through **(m)**, refer to **4. Specific Monitoring Requirements (k)**, **(o)**, **5. Specific Recordkeeping Requirements (d), (e), (f)** and **(g), 6. Specific Reporting Requirements (i), (j), (k),** and **(l).**

n. The permittee shall install, operate, and maintain a capture system that collects the emissions from each EAF (including charging, melting, and tapping operations) and conveys the collected emissions to a control device for the removal of particulate matter (PM). [40 CFR 63.10686(a); 401 KAR 51:017]

Compliance Demonstration Method:
Refer to **4. Specific Monitoring Requirements (d), (e), (f), (g), (h), (k)** and **5. Specific Recordkeeping Requirements (a)** and **(g)**.

o. In accordance with 40 CFR 63, Subpart A, the permittee shall develop and implement a written startup, shutdown, and malfunction (SSM) plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and

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

malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standards. The SSM plan shall meet the requirements in 40 CFR 63.6(e)(3). [40 CFR 63, Subpart YYYYY, Table 1]

Compliance Demonstration Method:
Refer to **5. Specific Recordkeeping Requirements (g).**

p. The permittee shall prepare and maintain for Emission Points 01-01, 01-04, 20-01, 20-04, 20-05A, B & C, 20-06A & B, 20-07A, B, & C, 20-08, 20-16, 20-17 within 90 days of startup, a good combustion and operations practices (GCOP) plan that defines, measures, and verifies the use of operational and design practices determined as BACT for minimizing PM, PM_{10}, $PM_{2.5}$, Lead, NO_x, CO, SO_2, VOC, and GHG emissions. Any revisions to the GCOP plan requested by the Division shall be made and the revisions shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]
   i. A list of combustion optimization practices and a means of verifying the practices have occurred.
   ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred.
   iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.

Compliance Demonstration Method:
Refer to **5. Specific Recordkeeping Requirements (g)**, **(i)**, and **6. Specific Reporting Requirements (n)**.

q. The permittee shall meet the following design and operational requirements for EPs 01-01, 01-04, 20-01, 20-04, 20-05A, B & C, 20-06A & B, 20-07A, B, & C, 20-08, 20-16, and 20-17 as the BACT determination for GHG: [401 KAR 51:017]
   i. Install and maintain seals and modern insulation media to minimize heat losses from EAF doors, roof, and any openings around the burners or other equipment traversing through the furnace shell.
   ii. Install, operate, and maintain oxy-fuel burners in accordance with manufacturer's specifications to maximize heat transfer, reduce heat losses, and reduce electrode consumption resulting in high thermal efficiency and reduced electrical energy consumption.
   iii. Employ foamy slag practices to reduce radiation heat losses and increases the electric power efficiency of the EAFs.
   iv. Optimize process control operations to reduce electricity consumption through monitoring integration of real-time monitoring of process variables along with real-time control systems for carbon injection and lance oxygen practices.

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

v. Implement a preventative maintenance program that is consistent with the manufacturer's instructions for routine and long-term maintenance of equipment important to the operation, including EAF doors, burners, etc.
vi. Conduct periodic preventive maintenance of gas supply valves in accordance with the manufacturer's recommended procedures and schedule.
vii. Conduct periodic calibration of gas supply meter in accordance with the manufacturer's recommended procedures and schedule.
viii. Employ a program for efficient ladle and tundish management to minimize the level of preheating required and maintaining the performance of the ladles and tundishes through proper refractory lining.
ix. Implement a maintenance and repair program for furnaces, ladles and tundishes to minimize convective and radiant heat losses through proper installation and maintenance of refractory/insulation lining.

Compliance Demonstration Method:
Compliance shall be demonstrated as follows:
A. The facility construction shall be completed in accordance with the BACT determination for GHGs and incorporating the design elements listed above. Refer to **6. Specific Reporting Requirements (o)**.
B. Prepare, maintain, and implement the GCOP plan. Refer to **1. Operating Limitations (p)**.
C. The permittee shall perform testing for PM, PM_{10}, $PM_{2.5}$, Fluorides, and VOC and continuously monitor NO_x, CO, and SO_2. Refer to **3. Testing Requirements.**

r. The permittee shall maintain the overall capture efficiency of Melt Shop #1 and #2 at or above 99% capture efficiency for PM, PM_{10}, and $PM_{2.5}$. [401 KAR 51:017]

Compliance Demonstration Method:
Compliance shall be demonstrated by completing the testing in **3. Testing Requirements (u),** submitting the report required in **6. Specific Reporting Requirements (l),** and monitoring according to **7. Specific Control Equipment Requirements (g)**.

s. For EPs 01-14, 20-08, 20-09, 20-10, 20-11, and 20-15 the permittee shall prepare and implement, upon initial compliance demonstration but no later than 90 days after startup, a Good Work Practices (GWP) plan that includes written operating instructions and procedures that specify good operating and maintenance practices and includes, at a minimum, the following specific practices targeting PM, PM_{10}, $PM_{2.5}$, VOC, Lead and Fluoride emission minimization, and a means of verifying the practices have occurred: [401 KAR 51:017]
i. Tracking material usage to ensure that equipment is operated as designed and correcting any operating or design issues as quickly as possible;
ii. Employing a preventative maintenance program, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

iii. Procedures and practices to monitor and ensure emissions are effectively captured by Melt Shop canopy hooding, and a description of corrective actions to be taken in the event that they are not.

Compliance Demonstration Method:
Refer to **5. Specific Recordkeeping Requirements (g)**, **(i)**, and **6. Specific Reporting Requirements (k)**.

t. The permittee shall limit the sulfur content of the EAF feedstock utilizing scrap management and/or shall add appropriate fluxes to the charge such that the emission limitations for SO_2 in **2. Emission Limitations (c)** are met. [401 KAR 51:017]

Compliance Demonstration Method:
Refer to **4. Specific Monitoring Requirements (a)**, **5. Specific Recordkeeping Requirements (g), (h)**, and **6. Specific Reporting Requirements (a)**.

u. EPs 20-04, 20-05A, B, & C, 20-06A & B, and 20-07A, B, & C shall be equipped with low NO_x burners (burners designed to maintain 70 lb/MMscf and the standards in **2. Emission Limitations (c)**). [401 KAR 51:017]

2. Emission Limitations:

a. ***Opacity Standard:*** The permittee shall not discharge or cause to be discharged into the atmosphere any gases which: [40 CFR 60.272a; 40 CFR 63.10686(b)]

i. Exit from a control device (EU 01 and EU 20 baghouse stacks) and exhibit 3 percent opacity or greater as measured in accordance with EPA Method 9 of appendix A of this part, or, as an alternative, according to ASTM D7520–16 (incorporated by reference, see 40 CFR 60.17), with the caveats described under *Shop opacity* in 40 CFR 60.271; and [40 CFR 60.272a(a)(2)]

ii. Exit from any melt shop (EU 01 and EU 20) opening and, due solely to operations of any EAF(s) or AOD vessel(s), exhibit 6 percent opacity or greater as measured in accordance with EPA Method 9 of appendix A of this part, or, as an alternative, according to ASTM D7520–16 (incorporated by reference, see 40 CFR 60.17), with the caveats described under *Shop opacity* in 40 CFR 60.271. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident; [40 CFR 60.272a(a)(3); 40 CFR 63.10686(b)(2)]

iii. From the dust-handling system (EP 10-06 and 10-07), exhibit 10 percent opacity or greater, as measured in accordance with EPA Method 9 of appendix A of this part, or, as an alternative, according to ASTM D7520–16 (incorporated by reference, see 40 CFR 60.17), with the caveats described under *Shop opacity* in 40 CFR 60.271. [40 CFR 60.272a(b)]

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

iv. Exit from any melt shop (EU 01 and EU 20) opening or stack and exhibit equal to or greater than twenty (20) percent opacity from any building opening or stack. [401 KAR 59:010, Section 3]

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the opacity standards as follows:

A. For **2. Emission Limitations (a)(i),** the permittee shall demonstrate compliance with baghouse opacity standards by meeting the requirements in **3. Testing Requirements, 4. Specific Monitoring Requirements (b), (c), 5. Specific Recordkeeping Requirements (c), 6. Specific Reporting Requirements (c), (d),** and **7. Specific Control Equipment Operating Conditions.**

B. For **2. Emission Limitations (a)(ii)**, the permittee shall demonstrate compliance with Melt Shop (EU01 and EU 20) opening opacity standards by meeting the requirements in **3. Testing Requirements, 4. Specific Monitoring Requirements (c)**, **(d)**, **5. Specific Recordkeeping Requirements (c),** and **7. Specific Control Equipment Operating Conditions.**

C. For **2. Emission Limitations (a)(iii),** the permittee shall demonstrate compliance with the dust handling system opacity standards by meeting the requirements in **3. Testing Requirements, 4. Specific Monitoring Requirements (q), 5. Specific Recordkeeping Requirements (c)** and **(j).**

D. Compliance with **2. Emission Limitations (a)(iv)** is assumed when complying with **2. Emission Limitations (a)(i)-(iii).**

b. ***Particulate, Lead (Pb), and Fluorides Emission Standard:*** The permittee shall not discharge or cause to be discharged into the atmosphere any gases which exceed the following limits:

i. From a control device (EU 01 and EU20 baghouse stacks): 0.0052 grains of PM per dry standard cubic foot (gr/dscf); [40 CFR 60.272a(a)(1); 40 CFR 63.10686(b)(1)]

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

1) For process weight rates ≤ 0.50 ton/hr: 2.34 lb/hr
2) For process weight rates > 0.50 ton/hr up to 30.00 tons/hr: $E = 3.59 * P^{0.62}$
3) For process weight rates > 30.00 tons/hr: $E = 17.3 * P^{0.16}$

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

iii. Emissions of Lead (Pb), Fluorides, PM, PM_{10}, and $PM_{2.5}$ shall not exceed the limits in the following two tables: [401 KAR 51:017]

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

Control Device (Stack)	BACT for Lead	BACT for Fluorides	BACT for PM (filterable)	BACT for PM_{10}	BACT for $PM_{2.5}$
Baghouse #1 & #2 Stack	0.00045 lb/ton; 0.45 ton/yr	0.0035 lb/ton; 3.52 tons/yr	0.0018 gr/dscf; 31.82 lb/hr; 139.4 tons/yr	0.0052 gr/dscf; 91.93 lb/hr; 402.7 tons/yr	0.0034 gr/dscf; 60.11 lb/hr; 263.3 tons/yr
Baghouse #3 Stack	0.00045 lb/ton; 0.45 ton/yr	0.0035 lb/ton; 3.52 tons/yr	0.0018 gr/dscf; 26.20 lb/hr; 115 tons/yr	0.0052 gr/dscf; 75.67 lb/hr; 331 tons/yr	0.0034 gr/dscf; 49.48 lb/hr; 217 tons/yr

Emission Point	Description	BACT for Lead	BACT for Fluorides	BACT for PM (filterable)	BACT for PM_{10}	BACT for $PM_{2.5}$
01-14	A-Line Caster Spray Vent	N/A	0.0011 lb/ton; 1.10 ton/yr	3.10 lb/hr; 13.59 ton/yr	0.70 lb/hr; 3.07 ton/yr	0.09 lb/hr; 0.38 ton/yr
10-06	Melt Shop #1 Baghouse #1 & #2 Dust Silo & Railcar Loading	2.59×10^{-6} lb/hr; 1.14×10^{-5} ton/yr	N/A	0.005 gr/dscf; 0.0514 lb/hr; 0.23 ton/yr	0.005 gr/dscf; 0.0514 lb/hr; 0.23 ton/yr	0.005 gr/dscf; 0.0514 lb/hr; 0.23 ton/yr
10-07	Melt Shop #2 Baghouse #3 Dust Silo & Railcar Loading	2.16×10^{-7} lb/hr; 9.46×10^{-7} ton/yr	N/A	0.005 gr/dscf; 0.0043 lb/hr; 0.02 ton/yr	0.005 gr/dscf; 0.0043 lb/hr; 0.02 ton/yr	0.005 gr/dscf; 0.0043 lb/hr; 0.02 ton/yr
20-11	B-Line Caster Spray Vent	N/A	0.0011 lb/ton; 1.92 ton/yr	15.17 lb/hr; 66.45 ton/yr	3.11 lb/hr; 13.61 ton/yr	0.39 lb/hr; 1.70 ton/yr

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the emission standards listed above as follows:

A. Compliance with **2. Emission Limitations (b)(i)** and **(ii)** is assumed when complying with **2. Emission Limitations (b)(iii)**.
B. For EP 10-06, and 10-07, compliance with **2. Emission Limitations (b)(ii)** is assumed when the bin vent filters and dust collectors are installed, operated, and maintained according to the manufacturer's specifications. Refer to **7. Specific Control Equipment Operating Conditions.**
C. Compliance with **2. Emission Limitations (b)(iii)** will be demonstrated as follows:
   1) For the Baghouse #1 & #2 stack and Baghouse #3 stack, the permittee shall meet the requirements in **1. Operating Limitations (a)** and **(b), 3. Testing Requirements, 4. Specific Monitoring Requirements (k)** and **(o), 5. Specific**

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

Recordkeeping Requirements (g), and **7. Specific Control Equipment Operating Conditions.**

2) For EP 01-14 and 20-11, the permittee shall meet the requirements in **1. Operating Limitations (s)**, **3. Testing Requirements, 4. Specific Monitoring Requirements (f)** and **(o), 5. Specific Recordkeeping Requirements (g)**.

c. ***CO, NO_x, SO_2, and GHG Emission Standard:*** Emissions of CO, NO_x, SO_2, and GHG shall not exceed the limits in the following two tables: [401 KAR 51:017]

Control Device (Stack)	BACT for CO*		BACT for NO_x*		BACT for SO_2*	
Baghouse #1, #2 & #3 Stack Combined Emissions	Production Days: 1.98 lb/ton	3,465 ton/yr	Production Days: 0.42 lb/ton	728 ton/yr	Production Days: 0.35 lb/ton; 175 lb/hr	606 ton/yr
	Non-Production Days: 42.6 lb/hr		Non-Production Days: 44.9 lb/hr		Non-Production Days: 0.30 lb/hr	

Control Device (Stack)	BACT for GHG (CO_2e)
Baghouse #1 & #2 Stack	535,000 tons/yr
Baghouse #3 Stack	535,000 tons/yr

*Note: BACT lb/ton and lb/hr limits for production days are based on 30-day rolling averages. BACT lb/hr limits for non-production days is based on a 24 hour average. BACT ton/yr limit is based on a 12-month rolling total and includes emissions from production days and non-production days.

Compliance Demonstration Method:

Compliance with the 401 KAR 51:017 emission limitations for CO, NO_x, SO_2, and GHGs will be demonstrated as follows:

A. For the Baghouse #1 & #2 stack and Baghouse #3 stack, the permittee shall meet the requirements in **1. Operating Limitations (c), (d), (f), (i)** through **(u), 3. Testing Requirements, 4. Specific Monitoring Requirements (a), (o), (p), 5. Specific Recordkeeping Requirements (g), (h)** and **(i)**, **6. Specific Reporting Requirements (a), (b), (m)** and **(n)**.

B. For the Baghouse #1 & #2 stack and Baghouse #3 stack, the permittee shall use CEMs to demonstrate compliance with the emission standards listed above as follows:

1) The permittee shall demonstrate continuous compliance with total CO emission limits using the following equations for each baghouse stack:

$$E_{(MS1)CO_x} = \sum_{i}^{24} 4.364 \times 10^{-6} \cdot C_{CO_i} \cdot Q_i$$

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

$$E_{(MS2)CO_x} = \sum_{i}^{24} 4.364 \times 10^{-6} \cdot C_{CO_i} \cdot Q_i$$

$$E_{CO_{30\ day}} = \sum_{x}^{30} E_{(MS1)CO_x} + E_{(MS2)CO_x}$$

$$P_{30\ day} = \sum_{x}^{30} P_{a_x} + P_{b_x}$$

$$X_{CO} = \frac{E_{CO_{30\ day}}}{P_{30\ day}}$$

Where:

$E_{(MS1)CO_x}$ = the daily total CO emissions on day *x*, in lbs CO from Baghouse #1 and Baghouse #2 Stack

$E_{(MS2)CO_x}$ = the daily total CO emissions on day *x*, in lbs CO from Baghouse #3 Stack

C_{CO_i} = the average CO concentration measured by the CEMS for the *i*th hour, in ppm, in the baghouse stack for which compliance is being demonstrated.

Q_i = the average exhaust flowrate measured for the *i*th hour, in scfm

P_{a_x} = the total production of steel in Caster A (EP 01-02) on day *x*, in tons of steel cast/day for the 24-hour production day *x* that is attributable to the associated EAF (EP 01-01 or EP 20-01)

P_{b_x} = the total production of steel in Caster B (EP 20-03) on day *x*, in tons of steel cast/day for the 24-hour production day *x* that is attributable to the associated EAF (EP 01-01 or EP 20-01)

$E_{CO_{30\ day}}$ = the 30-day rolling sum of daily CO emissions, in lbs CO, as the summation of all daily CO emissions for the preceding 30 production days

$P_{30\ day}$ = the 30-day rolling sum of daily production, in total tons of steel cast in the preceding 30 production days

X_{CO} = the 30-day rolling CO emissions in lbs CO/ton of steel cast

2) The permittee shall demonstrate continuous compliance with total NO_x emission limits using the following equations for each baghouse stack:

$$E_{(MS1)NO_{x_x}} = \sum_{i}^{24} 7.17 \times 10^{-6} \cdot C_{NO_{x_i}} \cdot Q_i$$

$$E_{(MS2)NO_{x_x}} = \sum_{i}^{24} 7.17 \times 10^{-6} \cdot C_{NO_{x_i}} \cdot Q_i$$

$$E_{NO_{x\ 30\ day}} = \sum_{x}^{30} E_{(MS1)NO_{x_x}} + E_{(MS2)NO_{x_x}}$$

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

$$X_{NO_x} = \frac{E_{NO_{x30\ day}}}{P_{30\ day}}$$

Where:

$E_{(MS1)NO_x x}$ = the daily total NO_x emissions on day *x*, in lbs NO_x from Baghouse #1 and Baghouse #2 Stack

$E_{(MS2)NO_x x}$ = the daily total NO_x emissions on day *x*, in lbs NO_x from Baghouse #3 Stack

$C_{NO_x i}$ = the average NO_x concentration measured by the CEMS for the *i*th hour, in ppm, in the baghouse stack for which compliance is being demonstrated.

$E_{NO_{x30\ day}}$ = the 30-day rolling sum of daily NO_x emissions, in lbs NO_x, as the summation of all daily NO_x emissions for the preceding 30 production days

X_{NO_x} = the 30-day rolling NO_x emissions in lbs NO_x/ton of steel cast

3) The permittee shall demonstrate continuous compliance with total SO_2 emission limits using the following equations for each baghouse stack:

$$E_{(MS1)SO_2 x} = \sum_{i}^{24} 9.974 \times 10^{-6} \cdot C_{SO_2 i} \cdot Q_i$$

$$E_{(MS2)SO_2 x} = \sum_{i}^{24} 9.974 \times 10^{-6} \cdot C_{SO_2 i} \cdot Q_i$$

$$E_{SO_2\ 30\ day} = \sum_{x}^{30} E_{(MS1)SO_2 x} + E_{(MS2)SO_2 x}$$

$$X_{SO_2} = \frac{E_{SO_2\ 30\ day}}{P_{30\ day}}$$

$$Y_{SO_2} = \frac{E_{SO_2\ 30\ day}}{H}$$

Where:

$E_{(MS1)SO_2 x}$ = the daily total SO_2 emissions on day *x*, in lbs SO_2 from Baghouse #1 and Baghouse #2 Stack

$E_{(MS2)SO_2 x}$ = the daily total SO_2 emissions on day *x*, in lbs SO_2 from Baghouse #3 Stack

$C_{SO_2 i}$ = the average SO_2 measured by the CEMS for the *i*th hour, in ppm, in the baghouse stack for which compliance is being demonstrated.

$E_{SO_2\ 30\ day}$ = the 30-day rolling sum of daily SO_2 emissions, in lbs SO_2, as the summation of all daily SO_2 emissions for the preceding 30 production days

X_{SO_2} = the 30-day rolling SO_2 emissions in lbs SO_2/ton of steel cast

Y_{SO_2} = the 30-day rolling SO_2 emission rate in lbs of SO_2/hr

H = the 30-day rolling total hours of production day operation

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

4) For the purposes of demonstrating compliance with **2. Emission Limitations (c),** the following definitions and requirements apply:
   I. A "Production Day" is defined as: any day that there is greater than 0 tons of steel melted that are ultimately cast during a 12:00 AM to 12:00 AM period. Note that "Production Day" may vary depending on factors such as if emissions are created in the melting process prior to midnight and the subsequent tons are not cast until after midnight. For this scenario, the emissions created by melting before midnight should be included into the 30 day rolling average as a production day since those tons are ultimately cast.
   II. A "Non-Production Day" is defined as: any day that there are 0 tons of steel melted or cast during a 12:00 AM to 12:00 AM period
   III. The 12-month rolling ton/year emission limitations include all emissions from both "Production Days" and "Non-Production Days".
   IV. Compliance with the emission limitations for "Non-Production Days" will be demonstrated by using the CEMS data to determine E_{CO_x}, $E_{NO_{x_x}}$, and $E_{SO_{2_x}}$ in lb for each Non-Production Day, dividing that value by 24 hours, and comparing it to the limits above.
   V. Compliance with Baghouse #1, #2, & #3 stack combined limits will be based on the CEMS data from the Baghouse #1, #2, & #3 stack and production data (tons of steel cast) in the caster(s) associated with casting the steel from EP 01-01 and EP 20-01.
   VI. During periods in which the melt shop and associated baghouses are shut down or idled for maintenance and the CEMS are not operational, the permittee shall calculate Non-Production Day emissions using the applicable natural gas emission factors for each source that continues to burn natural gas while idled.

d. ***VOC Emission Standard***: Emissions of VOC shall not exceed the limits in the following two tables: [401 KAR 51:017]

Control Device (Stack)	BACT for VOC
Baghouse #1 & #2 Stack	0.09 lb/ton;89.1 tons/yr
Baghouse #3 Stack	0.09 lb/ton; 89.1 tons/yr

Emission Point	Description	BACT for VOC
01-14	A-Line Caster Spray Vent	0.40 lb/hr; 1.75 tons/yr
20-11	B-Line Caster Spray Vent	0.80 lb/hr; 3.50 tons/yr

Compliance Demonstration Method:
Compliance with the 401 KAR 51:017 emission limitations for VOC will be demonstrated as follows:

A. For the Baghouse #1 & #2 stack and Baghouse #3 stack, the permittee shall meet the requirements in **1. Operating Limitations (c), (d), (i)** through **(s), 3. Testing Requirements (t), 4. Specific Monitoring Requirements (o), 5. Specific Recordkeeping Requirements (g)** and **(i)**, **6. Specific Reporting Requirements (n).**

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

B. For EP 01-14 & 20-11, the permittee shall meet the requirements in **1. Operating Limitations (s), 3. Testing Requirements (w), 4. Specific Monitoring Requirements (o), 5. Specific Recordkeeping Requirements (g)** and **(i), 6. Specific Reporting Requirements (n).**

3. Testing Requirements:

a. Except as provided for under 40 CFR 60.273a(d), when the permittee of an EAF controlled by a DEC is required to demonstrate compliance with the standard under 40 CFR 60.272a(a)(3), and at any other time the Administrator may require (under section 114 of the Clean Air Act, as amended), the pressure in the free space inside the furnace shall be determined during the melting and refining period(s) using the monitoring device required under 40 CFR 60.274a(f). The permittee may petition the Division for reestablishment of the pressure whenever the permittee can demonstrate to the Division's satisfaction that the EAF operating conditions upon which the pressures were previously established are no longer applicable. The pressure range or control setting during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a melting and refining period. Continuous operation at pressures higher than the operational range or control setting may be considered by the Division to be unacceptable operation and maintenance of the affected facility. [40 CFR 60.274a(g)]

b. During any performance test required under 40 CFR 60.8, and for any report thereof required by 40 CFR 60.276a(f), or to determine compliance with 40 CFR 60.272a(a)(3), the permittee shall monitor the following information for all heats covered by the test: [40 CFR 63.10686(d)(3), 40 CFR 60.274a(h)]
   i. Charge weights and materials, and tap weights and materials; [40 CFR 60.274a(h)(1)]
   ii. Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and, if a furnace static pressure monitoring device is operated pursuant 40 CFR 60.276a(f), the pressure inside an EAF when DEC systems are used; [40 CFR 60.274a(h)(2)]
   iii. Control device operation log; [40 CFR 60.274a(h)(3)]
   iv. Continuous opacity monitor or EPA Method 9 data, or, as an alternative to EPA Method 9, according to ASTM D7520–16 (incorporated by reference, see 40 CFR 60.17), with the caveats described under *Shop opacity* in 40 CFR 60.271; [40 CFR 60.274a(h)(4)]
   v. All damper positions, no less frequently than performed in the latest melt shop opacity compliance test for a full heat, if selected as a method to demonstrate compliance under 40 CFR 60.274a(b); [40 CFR 60.274a(h)(5)]
   vi. Fan motor amperes at each damper position, if selected as a method to demonstrate compliance under 40 CFR 60.274a(b); [40 CFR 60.274a(h)(6)]
   vii. Volumetric air flow rate through each separately ducted hood, if selected as a method to demonstrate compliance under 40 CFR 60.274a(b);and [40 CFR 60.274a(h)(7)]
   viii. Static pressure at each separately ducted hood, if selected as a method to demonstrate compliance under 40 CFR 60.274a(b). [40 CFR 60.274a(h)(8)]
   ix. Parameters monitored pursuant to 40 CFR 60.274a(h)(6) through (8) shall be recorded on a rolling averaging period not to exceed 15 minutes. [40 CFR 60.274a(h)(9)]

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

c. During performance tests required in 40 CFR 60.8, the permittee shall not add gaseous diluents to the effluent gas stream after the fabric filter in any pressurized fabric filter collector, unless the amount of dilution is separately determined and considered in the determination of emissions. [40 CFR 60.275a(a)]

d. When emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of 40 CFR 60, Subpart AAa but controlled by a common capture system and control device, the permittee shall use either or both of the following procedures during a performance test (see also 40 CFR 60.276a(e)): [40 CFR 60.275a(b)]
   i. Determine compliance using the combined emissions. [40 CFR 60.275a(b)(1)]
   ii. Use a method that is acceptable to the Division and that compensates for the emissions from the facilities not subject to the provisions of 40 CFR 60, Subpart AAa. [40 CFR 60.275a(b)(2)]
   iii. Any combination of the criteria of 40 CFR 60.275a(b)(1) and (b)(2). [40 CFR 60.275a(b)(3)]

e. When emission from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of 40 CFR 60, Subpart AAa, compliance with 40 CFR 60.272a(a)(3) will be based on emissions from only the affected facility(ies). The permittee may use operational knowledge to determine the facilities that are the sources, in whole or in part, of any emissions observed in demonstrations of compliance with 40 CFR 60.272a(a)(3). [40 CFR 60.275a(c)]

f. In conducting the performance tests required in 40 CFR 60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of 40 CFR 60 or other methods and procedures as specified in 40 CFR 60.275a, except as provided in 40 CFR 60.8(b). [40 CFR 60.275a(d)]

g. The permittee shall determine compliance with the particulate matter standards in 40 CFR 60.272a as follows: [40 CFR 60.275a(e)]
   i. EPA Method 5 (and referenced EPA Methods 1, 2, 3, 3A, 3B, and 4) shall be used for negative-pressure fabric filters and other types of control devices and EPA Method 5D (and referenced EPA Method 5) shall be used for positive-pressure fabric filters to determine the particulate matter concentration and volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf) and, when a single EAF or AOD vessel is sampled, the sampling time shall include an integral number of heats. The manual portions only and not the instrumental portion of the voluntary consensus standard ANSI/ASME PTC 19.10–1981 (incorporated by reference, see 40 CFR 60.17) is an acceptable alternative to EPA Methods 3, 3A, and 3B. [40 CFR 60.275a(e)(1)]
   ii. When more than one control device serves the EAF(s) being tested, the concentration of particulate matter shall be determined using the following equation: [40 CFR 60.275a(e)(2)]

$$c_{st} = \frac{[\sum_{i=1}^{n}(c_{si}Q_{sdi})]}{\sum_{i=1}^{n} Q_{sdi}}$$

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Where:
c_{st} = average concentration of particulate matter, mg/dscm (gr/dscf)
c_{si} = concentration of particulate matter from control device "i", mg/dscm (gr/dscf)
n = total number of control devices tested
Q_{sdi} = volumetric flow rate of stack gas from control device "i", dscm/hr (dscf/hr)

iii. EPA Method 9 or, as an alternative, ASTM D7520–16 (incorporated by reference, see 40 CFR 60.17), with the caveats described under *Shop opacity* in 40 CFR 60.271, and the procedures of 40 CFR 60.11 shall be used to determine opacity. [40 CFR 60.275a(e)(3)]

iv. To demonstrate compliance with 40 CFR 60.272a(a) (1), (2), and (3), the EPA Method 9 test runs on the EU 01 and EU 20 baghouse stacks shall be conducted concurrently with the particulate matter test runs on the EU 01 and EU 20 baghouse stacks, respectively, unless inclement weather interferes. [40 CFR 60.275a(e)(4)]

h. To comply with 40 CFR 60.274a(c), (f), (g), and (h), the permittee shall obtain the information required in these requirements during the particulate matter runs. [40 CFR 60.275a(f)]

i. Any control device subject to the provisions of 40 CFR 60, Subpart AAa shall be designed and constructed to allow measurement of emissions using applicable test methods and procedures. [40 CFR 60.275a(g)]

j. Where emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of 40 CFR Subpart AAa, determinations of compliance with 40 CFR 60.272a(a)(3) will only be based upon emissions originating from the affected facility(ies), except if the combined emissions are controlled by a common capture system and control device, in which case the permittee may use any of the following procedures during an opacity performance test and during shop opacity observations: [40 CFR 60.275a(h)]
   i. Base compliance on control of the combined emissions; or [40 CFR 60.275a(h)(1)]
   ii. Utilize a method acceptable to the Administrator that compensates for the emissions from the facilities not subject to the provisions of 40 CFR 60, Subpart AAa; [40 CFR 60.275a(h)(2)]

k. Unless the presence of inclement weather makes concurrent testing infeasible, the permittee shall conduct concurrently the performance tests required under 40 CFR 60.8 to demonstrate compliance with 40 CFR 60.272a(a) (1), (2), and (3). [40 CFR 60.275a(i)]

l. When the permittee is required to demonstrate compliance with the standard under 40 CFR 60.275a(b)(2) or a combination of 40 CFR 60.275a(b)(1) and (b)(2) the permittee shall provide notice to the Division of the procedure(s) that will be used to determine compliance. Notification of the procedure(s) to be used must be postmarked at least 30 days prior to the performance test. [40 CFR 60.276a(e)]

m. For the purpose of 40 CFR 60, Subpart AAa, the permittee shall conduct the demonstration of compliance with 40 CFR 60.272a(a) and furnish the Division with a written report of

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the results of the test. This report shall include the following information: [40 CFR 60.276a(f)]

i. Facility name and address; [40 CFR 60.276a(f)(1)]
ii. Plant representative; [40 CFR 60.276a(f)(2)]
iii. Make and model of the control device, and continuous opacity monitoring equipment, if applicable; [40 CFR 60.276a(f)(3)]
iv. Flow diagram of process and emission capture system including other equipment or process(es) ducted to the same control device; [40 CFR 60.276a(f)(4)]
v. Rated (design) capacity of process equipment; [40 CFR 60.276a(f)(5)]
vi. Those data required under 40 CFR 60.274a(h); [40 CFR 60.276a(f)(6)]
    1) List of charge and tap weights and materials; [40 CFR 60.276a(f)(6)(i)]
    2) Heat times and process log; [40 CFR 60.276a(f)(6)(ii)]
    3) Control device operation log; and [40 CFR 60.276a(f)(6)(iii)]
    4) Continuous opacity monitor or EPA Method 9 data, or, as an alternative to EPA Method 9, according to ASTM D7520–16 (incorporated by reference, see 40 CFR 60.17), with the caveats described under *Shop opacity* in 40 CFR 60.271. [40 CFR 60.276a(f)(6)(iv)]
vii. Test dates and test times; [40 CFR 60.276a(f)(7)]
viii. Test company; [40 CFR 60.276a(f)(8)]
ix. Test company representative; [40 CFR 60.276a(f)(9)]
x. Test observers from any outside agency; [40 CFR 60.276a(f)(10)]
xi. Description of test methodology used, including any deviation from standard reference methods; [40 CFR 60.276a(f)(11)]
xii. Schematic of sampling location; [40 CFR 60.276a(f)(12)]
xiii. Number of sampling points; [40 CFR 60.276a(f)(13)]
xiv. Description of sampling equipment; [40 CFR 60.276a(f)(14)]
xv. Listing of sampling equipment calibrations and procedures; [40 CFR 60.276a(f)(15)]
xvi. Field and laboratory data sheets; [40 CFR 60.276a(f)(16)]
xvii. Description of sample recovery procedures; [40 CFR 60.276a(f)(17)]
xviii. Sampling equipment leak check results; [40 CFR 60.276a(f)(18)]
xix. Description of quality assurance procedures; [40 CFR 60.276a(f)(19)]
xx. Description of analytical procedures; [40 CFR 60.276a(f)(20)]
xxi. Notation of sample blank corrections; and [40 CFR 60.276a(f)(21)]
xxii. Sample emission calculations. [40 CFR 60.276a(f)(22)]

n. Within 60 days after the date of completing each performance test or demonstration of compliance required by 40 CFR 60, Subpart AAa, the permittee must submit the results of the performance test following the procedures specified in 40 CFR 60.276a(i)(1) through (3). [40 CFR 60.276a(i)]
    i. Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert) at the time of the test. Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). The data must be submitted in a file format generated using the EPA's ERT. Alternatively, the permittee may submit an electronic file

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consistent with the extensible markup language (XML) schema listed on the EPA's ERT website; [40 CFR 60.276a(i)(1)]

ii. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test. The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI; [40 CFR 60.276a(i)(2)]

iii. Confidential business information (CBI). Do not use CEDRI to submit information the permittee claim as CBI. Anything submitted using CEDRI cannot later be claimed CBI. Refer to 40 CFR 60.276a(i)(3) for requirements related to submitting CBI. [40 CFR 60.276a(i)(3)]

o. Except as provided in 40 CFR 63.10686(d)(6), the permittee shall conduct performance tests to demonstrate initial compliance with the applicable emissions limit for each emissions source subject to an emissions limit in 40 CFR 63.10686(b). [40 CFR 63.10686(d)]

p. The permittee must conduct each PM performance test for an EAF or AOD vessel according to the procedures in 40 CFR 63.7, 40 CFR 63.10686(d) and 40 CFR 60.275a using the following test methods in 40 CFR part 60, appendices A-1, A-2, A-3, and A-4: [40 CFR 63.10686(d)(1)]

i. Method 1 or 1A of appendix A-1 of 40 CFR part 60 to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device prior to any releases of the atmosphere. [40 CFR 63.10686(d)(1)(i)]

ii. Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A-1 of 40 CFR part 60 to determine the volumetric flow rate of the stack gas. [40 CFR 63.10686(d)(1)(ii)]

iii. Method 3, 3A, or 3B of appendix A-3 of 40 CFR part 60 to determine the dry molecular weight of the stack gas. ANSI/ASME PTC 19.10-1981, “Flue and Exhaust Gas Analyses” as an alternative to EPA method 3B. [40 CFR 63.10686(d)(1)(iii)]

iv. Method 4 of appendix A-3 of 40 CFR part 60 to determine the moisture content of the stack gas. [40 CFR 63.10686(d)(1)(iv)]

v. Method 5 or Method 5D of appendix A-3 of 40 CFR part 60 to determine the PM concentration. Three valid test runs are needed to comprise a PM performance test. For an EAF, sample only when metal is being melted and refined. For AOD vessels, sample only when the operation(s) are being conducted. The sample time and sample volume for each run shall be at least 4 hours and 160 dscf (4.50 dscm) and the sampling time shall include an integral number of heats. [40 CFR 60.275a(e)(1); 40 CFR 63.10686(d)(1)(v)]

q. The permittee shall conduct each opacity test for a melt shop according to the procedures in 40 CFR 63.6(h) and Method 9 of appendix A-4 of 40 CFR part 60. [40 CFR 63.10686(d)(2)]

r. During any performance test, the permittee shall monitor and record the information specified in 40 CFR 60.274a(h) for all heats covered by the test. [40 CFR 63.10686(d)(3)]

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s. If the performance tests and/or compliance demonstrations are not conducted at the maximum capacity of the tested unit (EP 01-01 or EP 20-01) as specified herein, the performance tests and/or compliance tests shall be repeated at 50 ton production increase intervals. Measurement of a production increase shall be based on changes in the average steel production per three consecutive heats. The permittee may petition the Division to exclude testing for certain pollutants at each of these productions increase intervals. [401 KAR 50:045]

t. To demonstrate compliance with 401 KAR 51:017 and establish emission factors, the permittee shall conduct annual performance tests for baghouse #1 and #2 stack and baghouse #3 stack within 60 days after achieving the maximum production rate at which the associated EAF (EP 01-01 and EP 20-01) will be operated, but not later than 180 days after initial startup of the modifications authorized by V-20-015 R1 and every year thereafter for PM, PM_{10}, $PM_{2.5}$, Pb, Fluorides, and VOC. If two consecutive annual tests result in PM, PM_{10}, $PM_{2.5}$, Pb, Fluorides, or VOC emissions being less than or equal to 75% of the standards for the associated pollutant specified herein, then no additional annual testing shall be required for that pollutant during the term of this permit provided that the source is operated according to the operating scenario that was in use when compliance was demonstrated and the CEMs systems continue to be properly operated, calibrated, and maintained. [401 KAR 51:017]

u. The permittee shall, during the testing required by **3. Testing Requirements (t)**, verify the direction of airflow through both the largest building wall opening closest to the EAF, 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 fan RPM/amperage and volumetric flow rate shall be monitored during the test.
   iii. In the event that this test cannot be performed safely during the testing required by **3. Testing Requirements (t)**, the permittee may conduct this test separately while replicating the fan RPM/amperage and volumetric flow rate achieved during **3. Testing Requirements (t).**

v. The exhaust rate of emissions from baghouse #1 and baghouse #2 referenced under **2. Emission Limitations** above, is to be determined based upon measurement of flow rates in the caster canopy duct, ladle dryer, segment shop, tundish deskull area, EAF canopy duct, 2 DEC ducts and LMF duct, combined, and converted to standard conditions over three 8-hour periods under conditions representative of normal EAF operations. The exhaust rate of emissions from Baghouse #3 is to be determined based upon measurement of flow rates in the EAF canopy duct, Area Hoods/LMFs duct, combined and converted to standard conditions over three 8-hour periods under conditions representative of normal EAF operations. The flow rate measurements shall be determined by EPA Methods 1 through 4. Alternatively, with approval from the Division, the permittee may measure the flow rate from a location that is representative of the total combined flow rate of the system. The permittee shall submit a report to the Division supporting the determination of any revised exhaust rate that is to be used in providing compliance assurance through the formula specified in **2. Emission Limitations** above. The exhaust rate is to be re-

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

determined by the permittee if changes in operating conditions occur that would indicate that the previously-determined exhaust rate is no longer representative of normal operating conditions, and the Division concurs.

w. The permittee shall conduct performance tests on the Caster Spray Vents (EP 01-14 and EP 20-11) within 60 days after achieving the maximum production rate at which the associated caster will be operated, but not later than 180 days after initial startup and annually thereafter for PM, PM_{10}, $PM_{2.5}$, and VOC. If two consecutive annual tests result in PM, PM_{10}, $PM_{2.5}$, or VOC emissions being less than or equal to 75% of the standards for the associated pollutant specified herein, then no additional annual testing shall be required for that pollutant during the term of this permit provided that the source is operated according to the operating scenario that was in use when compliance was demonstrated. [401 KAR 51:017]
   i. The permittee shall use U.S. EPA Methods 201A & 202 for PM, PM10, and PM2.5;
   ii. The permittee shall use U.S. EPA Method 25 for VOC;
   iii. The permittee may use an alternate method upon approval from the Division.
   iv. These tests shall demonstrate compliance with **2. Emission Limitations** and establish emission factors for each pollutant in lb/ton.

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

4. Specific Monitoring Requirements:

a. The permittee shall install, maintain, and operate continuous emission monitoring systems for the SO_2, NO_X, and CO concentrations of the gases in both baghouse #1 and #2 stack and baghouse #3 stack, or other approved locations. The SO_2, NO_X, and CO monitors shall be installed and operated in compliance with Performance Specifications 2 and 4, as contained in 40 CFR Part 60, Appendix B. The span values for the monitors shall be 500 ppm for CO, 50 ppm for SO_2, and 50 ppm for NO_x. The monitors shall be calibrated as specified in Performance Specification 2 for SO_2 and NO_x, and Performance Specification 4 for CO as contained in 40 CFR Part 60 Appendix B. The quality assurance shall follow the requirements of 40 CFR Part 60 Appendix F. [401 KAR 51:017]

b. Observations of the opacity of the visible emissions from each control device must be performed by a certified visible emission observer and the permittee shall install and operate a bag leak detection system according to 40 CFR 60.273a(e) whenever the control device is being used to remove particulate matter from the EAF for each baghouse stack. [40 CFR 60.273a(c)]
   i. Visible emission observations shall be conducted at least once per day of the control device for at least three 6-minute periods when the furnace is operating in the melting and refining period.
   ii. All visible emissions observations shall be conducted in accordance with EPA Method 9., or, as an alternative, according to ASTM D7520–16 (incorporated by reference, see 40 CFR 60.17), with the caveats described under Shop opacity in 40 CFR 60.271.

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iii. If visible emissions occur from more than one point, the opacity shall be recorded for any points where visible emissions are observed.
iv. Where it is possible to determine that a number of visible emission points relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In that case, the EPA Method 9 observations must be made for the point of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.
v. Records shall be maintained of any 6-minute average that is in excess of the emission limit specified in 40 CFR 60.272a(a)(2).

c. A furnace static pressure monitoring device is not required on any EAF equipped with a Direct-shell Evacuation Control (DEC) system if observations of shop opacity are performed by a certified visible emission observer as follows: [40 CFR 60.273a(d)]
   i. At least once per day when the furnace is operating for each melt shop (EU 01 and EU 02). [40 CFR 60.273a(d)(1)]
   ii. No less than once per week, commencing from the tap of one EAF heat cycle to the tap of the following heat cycle. A melt shop with more than one EAF shall conduct these readings while both EAFs are in operation. Both EAFs are not required to be on the same schedule for tapping. [40 CFR 60.273a(d)(2)]
   iii. Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with EPA Method 9, or, as an alternative, according to ASTM D7520–16 (incorporated by reference, see 40 CFR 60.17), with the caveats described under *Shop opacity* in 40 CFR 60.271. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission points relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the point of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. [40 CFR 60.273a(d)(3)]

d. Except as provided under 40 CFR 60.274a(e), the permittee shall: [40 CFR 60.274a(b)]
   i. Monitor and record on a continuous basis the rolling 15-minute average furnace static pressure (if a DEC system is in use, and a furnace static pressure gauge is installed according to 40 CFR 60.274a(f)) and either: [40 CFR 60.274a(b)(1)]
      1) Install, calibrate, and maintain a monitoring device that continuously records the capture system fan motor amperes and damper position(s); [40 CFR 60.274a(b)(1)(i)]
      2) Install, calibrate, and maintain a monitoring device that continuously records on a rolling 15-minute average basis either the volumetric flow rate through each separately ducted hood; or [40 CFR 60.274a(b)(1)(ii)]
      3) Install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet continuously record damper positions(s). [40 CFR 60.274a(b)(1)(iii)]
   ii. The volumetric flow monitoring device(s) may be installed in any appropriate location in the capture system such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ±10 percent over its normal

operating range and shall be calibrated according to the manufacturer's instructions. The Administrator may require the permittee to demonstrate the accuracy of the monitoring device(s) relative to EPA Methods 1 and 2 of 40 CFR Part 60, Appendix A. [40 CFR 60.274a(b)(2)]

iii. Parameters monitored pursuant to 40 CFR 60.274a(b), excluding damper position, shall be recorded on a rolling averaging period not to exceed 15 minutes. [40 CFR 60.274a(b)(3)]

e. When the permittee is required to demonstrate compliance with the standards under 40 CFR 60.272a(a)(3) and at any other time that the Administrator may require (under section 114 of the CAA, as amended), the permittee shall determine during periods in which a hood is operated for the purpose of capturing emissions from the affected facility subject to 40 CFR 60.4274a(b), all damper positions and either the: [40 CFR 60.274a(c)]

i. Monitor and record the fan motor amperes at each damper position, and damper position consistent with 40 CFR 60.274a(h)(5); [40 CFR 60.274a(c)(1)]

ii. Install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or [40 CFR 60.274a(c)(2)]

iii. Install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and monitor and record the damper position consistent with 40 CFR 60.274a(h)(5). [40 CFR 60.274a(c)(3)]

iv. Parameters monitored pursuant to 40 CFR 60.274a(c), excluding damper position, shall be recorded on a rolling averaging period not to exceed 15 minutes. [40 CFR 60.274a(c)(4)]

v. The permittee may petition the Division for reestablishment of these parameters whenever the permittee can demonstrate to the Division's satisfaction that the affected facility operating conditions upon which the parameters were previously established are no longer applicable. The values of the parameters as determined during the most recent demonstration of compliance shall be the appropriate operational range or control set point throughout each applicable period. Operation at values beyond the accepted operational range or control set point may be subject to the requirements of 40 CFR 60.276a(c). [40 CFR 60.274a(c)(5)]

f. Except as provided under 40 CFR 60.274a(e), the permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the capture system (*i.e.*, pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (*e.g.*, presence of holes in ductwork or hoods, flow constrictions caused by dents or excess accumulations of dust in ductwork, and fan erosion) and building inspections to ensure that the building does not have any holes or other openings for particulate matter laden air to escape. Any deficiencies that are determined by the operator to materially impact the efficacy of the capture system shall be noted and proper maintenance performed. [40 CFR 60.274a(d)]

g. The permittee may petition the Division to approve any alternative to either the monitoring requirements specified in 40 CFR 60.274a(b) or the monthly operational status inspections specified in 40 CFR 60.274a(d) if the alternative will provide a continuous record of operation of each emission capture system. [40 CFR 60.274a(e)]

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

h. For Melt Shop #2 (Baghouse #3), as provided under 40 CFR 60.274a(e), the permittee may place the volumetric flow monitoring device in the exit stack of Baghouse #3 (at the same elevation as the compliance testing platform and CEMS sampling equipment) in lieu of inlet to control device specified in **4. Specific Monitoring Requirements (d)** above. The permittee shall comply with accuracy and calibration requirements specified in 40 CFR 60.274a(b). [40 CFR 60.274a(e)]

i. Except as provided for under 40 CFR 60.273a(d), if emissions during any phase of the heat cycle are controlled by the use of a DEC system, the permittee shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The pressure shall be recorded as no greater than 15-minute integrated block averages. The monitoring device may be installed in any appropriate location in the EAF or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions. [40 CFR 60.274a(f)]

j. Any records required to be maintained by 40 CFR Subpart AAa that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [40 CFR 60.276a(m)]

k. The permittee shall monitor the capture system and PM control device required by 40 CFR 63, Subpart YYYYY, maintain records, and submit reports according to the compliance assurance monitoring requirements in 40 CFR part 64. The exemption in 40 CFR 64.2(b)(1)(i) for emissions limitations or standards proposed after November 15, 1990 under section 111 or 112 of the CAA does not apply. In lieu of the deadlines for submittal in 40 CFR 64.5, the permittee shall submit the monitoring information required by 40 CFR 64.4 to the Division for approval by no later than startup of the affected source and operate according to the approved plan by no later than 180 days after the date of approval by the Division. Refer to **Section I** and **Appendix A**.[40 CFR 63.10686(e)]

l. Upon detecting an excursion or exceedance (as defined in the appropriate CAM plan), the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [40 CFR 64.7(d)(1)]

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m. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance (as defined in the CAM plan) will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. [40 CFR 64.7(d)(2)]

n. The permittee shall inspect each load of scrap as it is received either by truck, railcar, or barge. The permittee shall maintain records of the types and amounts of scrap used during stack tests. The permittee shall use only scrap and scrap mixes that are typical of the scrap used during stack tests when compliance was demonstrated. The scrap shall be largely free of foreign materials such as oil and greases and shall not contain materials likely to have excess organic material. [401 KAR 52:020, Section 10]

o. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The daily, monthly, and 12-month rolling steel production rate (as measured as the total tons of steel cast);
   ii. The amount of carbon charged or injected per heat;
   iii. The amount of fluorspar charged per heat;
   iv. The types of material charged to the furnace;
   v. The monthly and 12-month rolling throughput for each emission point;
   vi. The monthly and 12-month rolling natural gas combusted (MMscf) in each emission point. If the permittee elects not to install a fuel metering device to continuously monitor the amount of natural gas fed to each emission point, the permittee may use a combined meter for multiple emission points, as long as 100% of the natural gas emissions are apportioned to each emission point based on usage;
   vii. The monthly and 12-month rolling emissions of NO_x, CO, and SO_2.

p. If the CEM data recorded in a calendar quarter show excursions from the emission limit that occur in the aggregate for more than 5% of the total number of data sets generated during the quarter, the permittee shall contact the Division within thirty (30) days of aggregation of said excursions to schedule a performance test to demonstrate compliance with the CO, NO_x, and SO_2 emission rates. The permittee shall conduct the performance test within ninety (90) days from the date it is required to contact the Division. The Division may waive this testing requirement upon a demonstration that the cause of the excursions has been corrected. [401 KAR 52:020, Section 10]

q. The permittee shall perform a qualitative visual observation of the opacity of emissions from the Dust Handling Equipment at least once per week while the Dust Handling Equipment is operating. If visible emissions 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]

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the following information: [40 CFR 60.274a(a)]
   i. All data obtained under 40 CFR 60.274a(b); and [40 CFR 60.274a(a)(1)]
   ii. All monthly operational status inspections performed under 40 CFR 60.274a(c). [40 CFR 60.274a(a)(2)]

b. Records of the measurements required in 40 CFR 60.274a must be retained for at least 5 years following the date of the measurement. [40 CFR 60.276a(a)]

c. The permittee shall maintain records of all shop opacity observations made in accordance with 40 CFR 60.273a(d). All shop opacity observations in excess of the emission limit specified in 40 CFR 60.272a(a)(3) shall indicate a period of excess emissions, and shall be reported to the Division semi-annually, according to 40 CFR 60.7(c), and submitted according to 40 CFR 60.276a(j). [40 CFR 60.276a(g)]

d. In addition to the records required by 40 CFR 63.10, the permittee shall keep records to demonstrate compliance with the requirements for the pollution prevention plan in 40 CFR 63.10685(a)(1) and **Appendix B** and/or for the use of only restricted scrap in 40 CFR 63.10685(a)(2) and for mercury in 40 CFR 63.10685(b)(1) through (3) as applicable. The permittee shall keep records documenting compliance with 40 CFR 63.10685(b)(4) for scrap that does not contain motor vehicle scrap. [40 CFR 63.10685(c)]

e. If the permittee is subject to the requirements for a site-specific plan for mercury under 40 CFR 63.10685(b)(1), the permittee shall 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. [40 CFR 63.10685(c)(1)(i)]

f. If the permittee is subject to the option for approved mercury programs under 40 CFR 63.10685(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 permittee purchases motor vehicle scrap from a broker, the permittee shall maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in an approved mercury switch removal program. [40 CFR 63.10685(c)(2)]

g. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. Amounts of carbon charged and injected per heat;
   ii. Amounts and types, as well as a general description of, the scrap or scrap substitutes charged to the furnace;
   iii. The maintenance and operating parameters of the control equipment. The parameters shall include recorded pressure drop ranges, and those parameters required to be monitored by 40 CFR 60, Subpart AAa.
   iv. The daily, monthly, and 12-month rolling steel production rate (as measured as the total tons of steel cast);
   v. The amount of fluorspar charged per heat;

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vi. The amount of lime charged per heat;
vii. The monthly and 12-month rolling natural gas usage for each combustion emission point;
viii. The monthly and 12-month rolling emissions of PM, PM_{10}, $PM_{2.5}$, NO_x, CO, SO_2, VOC, Pb, Fluorides, and GHGs;
ix. Monitored parameters for the control devices as required by the approved CAM Plan and **7. Specific Control Equipment Operating Conditions**.
x. The maintenance performed on the sidewall burners and any time they are not operated according to the manufacturer's specifications in accordance with **1. Operating Conditions (f)**.
xi. The training requirements in **1. Operating Conditions (j);**
xii. The SSM plan developed in accordance with 40 CFR 63, Subpart A, as well as those records required by **1. Operating Conditions (o);**
xiii. The GCOP plan required by **1. Operating Conditions (p)** as well as any revisions;
xiv. The GWP plan required by **1. Operating Conditions (s)** as well as any revisions;
xv. Fan amperes and damper positions to demonstrate that the DEC system is operating normally and consistent with the fan ampere and damper position ranges in accordance with **4. Specific Monitoring Requirements (d)**.
xvi. The sulfur content of carbon, as received.
xvii. The monthly and 12-month rolling process weight rate for each emission point.

h. The permittee shall keep records of the SO_2, CO, and NO_X (expressed as NO_2) concentrations recorded from the CEMs showing the corresponding steel production data and other data used to provide reasonable assurance of compliance with SO_2, NO_X, and CO emission limitations under the formulas specified in **2. Emission Limitations (c)**, **Compliance Demonstration Method.** [401 KAR 52:020, Section 10]

i. The permittee shall maintain records of any time that an emission point listed above was not operated according to the GCOP plan or GWP plan required by **1. Operating Conditions (p)** and **(s)** with a description of the situation and actions taken to remedy the issue. [401 KAR 52:020, Section 10]

j. The permittee shall maintain a log of the qualitative visual observations including; date, time, initials of observer, whether emissions were visible and records of corrective actions taken as a result of visible emissions, and records of any U.S. EPA Reference Method 9 opacity readings performed. [401 KAR 52:020, Section 10]

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

6. Specific Reporting Requirements:

a. The permittee shall provide quarterly written and electronically formatted reports to the Division containing the data provided by the CEMs systems. All reports shall be post marked by the 30th day following the end of each calendar quarter and shall be submitted in the format specified by the Division. The averaging periods used for data reporting shall correspond to the averaging periods specified herein for emission limitations. The emissions shall be reported in ppm per hour, pounds per hour, pounds per ton of steel rolled,

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tons per reporting period, and cumulative tons per year for the preceding consecutive 12-month period. The permittee shall identify the methodology used to determine the above required information in the quarterly reports. NO_X emissions shall be reported as NO_2. A file shall be kept and maintained on the following items: [401 KAR 52:020, Section 10]

i. Emission measurement;
ii. Monitor performance testing measurements;
iii. Performance evaluations;
iv. Calibration checks;
v. Adjustments and maintenance performed on the monitoring devices.

b. Within 30 days of the end of each calendar quarter, the permittee shall submit to the Division a report containing the number of excursions above the SO_2, CO and NO_X emission limitations that are indicated by the methodology established in **2. Emission Limitations (c)**, **Compliance Demonstration Method**. The report shall include the date and time of the excursions, the indicated values of the excursions, and the percentage of EAF (EP 01-01 or EP 20-01) operating time during which excursions occurred in the calendar quarter. [401 KAR 52:020, Section 10]

c. The permittee shall submit a written report of exceedances of the control device opacity to the Division semi-annually. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity of emissions from the control device is 3 percent or greater. [40 CFR 60.276a(b)]

d. Continuous operation at a furnace static pressure that exceeds the operational range or control setting under 40 CFR 60.274a(g), for the permittee that elects to install a furnace static pressure monitoring device under 40 CFR 60.274a(f), or operation at flow rates lower than those established under 40 CFR 60.274a(c) may be considered by the Division to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the Division semiannually. [40 CFR 60.276a(c)]

e. For the reporting required by 40 CFR 60.276a(g): In addition to the information required at 40 CFR 60.7(c), the report shall include the following information: [40 CFR 60.276a(g)]
   i. The company name and address of the affected facility. [40 CFR 60.276a(g)(1)]
   ii. An identification of each affected facility being included in the report. [40 CFR 60.276a(g)(2)]
   iii. Beginning and ending dates of the reporting period. [40 CFR 60.276a(g)(3)]
   iv. A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [40 CFR 60.276a(g)(4)]

f. The permittee must submit a report of excess emissions and monitoring systems performance report according to 40 CFR 60.7(c) to the Administrator semiannually. Submit all reports to the EPA via CEDRI, which can be accessed through the EPA's CDX (https://cdx.epa.gov/). The EPA will make all the information submitted through CEDRI available to the public without further notice to the permittee. Do not use CEDRI to submit

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information the permittee claim as CBI. Anything submitted using CEDRI cannot later be claimed CBI. The permittee must use the appropriate electronic report template on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/cedri) for this subpart. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in 40 CFR subpart AAa, regardless of the method in which the report is submitted. Although the EPA does not expect persons to assert a claim of CBI, if the permittee wishes to assert a CBI claim, follow 40 CFR 60.276a(i)(3) except send to the attention of the Electric Arc Furnace Sector Lead. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in 40 CFR 60.276a(j). All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. [40 CFR 60.276a(j)]

g. If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the permittee may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, the permittee must meet the requirements outlined in 40 CFR 60.276a(k)(1) through (7). [40 CFR 60.276a(k)]
   i. The permittee must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems; [40 CFR 60.276a(k)(1)]
   ii. The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due; [40 CFR 60.276a(k)(2)]
   iii. The outage may be planned or unplanned; [40 CFR 60.276a(k)(3)]
   iv. The permittee must submit notification to the Administrator in writing as soon as possible following the date the permittee first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting; [40 CFR 60.276a(k)(4)]
   v. The permittee must provide to the Administrator a written description identifying: [40 CFR 60.276a(k)(5)]
      1) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable; [40 CFR 60.276a(k)(5)(i)]
      2) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage; [40 CFR 60.276a(k)(5)(ii)]
      3) A description of measures taken or to be taken to minimize the delay in reporting; and; [40 CFR 60.276a(k)(5)(iii)]
      4) The date by which the permittee proposes to report, or if the permittee have already met the reporting requirement at the time of the notification, the date the permittee reported. [40 CFR 60.276a(k)(5)(iv)]
   vi. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator. [40 CFR 60.276a(k)(6)]
   vii. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. [40 CFR 60.276a(k)(7)]

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

h. If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the permittee may assert a claim of force majeure for failure to timely comply with that reporting requirement. To assert a claim of force majeure, the permittee must meet the requirements outlined in 40 CFR 60.276a(l)(1) through (5). [40 CFR 60.276a(l)]
   i. The permittee may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage). [40 CFR 60.276a(l)(1)]
   ii. The permittee must submit notification to the Administrator in writing as soon as possible following the date the permittee first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting; [40 CFR 60.276a(l)(2)]
   iii. The permittee must provide to the Administrator: [40 CFR 60.276a(l)(3)]
      1) A written description of the force majeure event; [40 CFR 60.276a(l)(3)(i)]
      2) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; [40 CFR 60.276a(l)(3)(ii)]
      3) A description of measures taken or to be taken to minimize the delay in reporting; and [40 CFR 60.276a(l)(3)(iii)]
      4) The date by which the permittee proposes to report, or if the permittee has already met the reporting requirement at the time of the notification, the date the permittee reported. [40 CFR 60.276a(l)(3)(iv)]
   iv. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator. [40 CFR 60.276a(l)(4)]
   v. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. [40 CFR 60.276a(l)(5)]

i. For each scrap provider subject to a site-specific mercury reduction plan, 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 63.10685(b)(1)(ii)(A). This information can be submitted in aggregated form and does not have to be submitted for each scrap provider, contract, or 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 63.10685(b)(1)(v)]

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

j. If the permittee is subject to the requirements for a site-specific plan for mercury under 40 CFR 63.10685(b)(1), the permittee shall 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 must include a certification that the permittee has conducted inspections or taken other means of corroboration as required under 40 CFR 63.10685(b)(1)(ii)(C). The permittee may include this information in the semiannual compliance reports required under 40 CFR 63.10685(c)(3). [40 CFR 63.10685(c)(1)(ii)]

k. The permittee shall submit semiannual compliance reports to the Administrator for the control of contaminants from scrap according to the requirements in 40 CFR 63.10(e). The report must clearly identify any deviation from the requirements in 40 CFR 63.10685(a) and (b) and the corrective action taken. The permittee shall identify which compliance option in 40 CFR 63.10685(b) applies to each scrap provider, contract, or shipment. [40 CFR 63.10685(c)(3)]

l. The notification of compliance status required by 40 CFR 63.9(h) must include each applicable certification of compliance, signed by a responsible official, in 40 CFR 63.10690(b)(1) through (6). [40 CFR 63.10690(b)]
   i. For the pollution prevention plan requirements in 40 CFR 63.10685(a)(1): "This facility has submitted a pollution prevention plan for metallic scrap selection and inspection in accordance with 40 CFR 63.10685(a)(1)"; [40 CFR 63.10690(b)(1)]
   ii. For the restrictions on metallic scrap in 40 CFR 63.10685(a)(2): "This facility complies with the requirements for restricted metallic scrap in accordance with 40 CFR 63.10685(a)(2)"; [40 CFR 63.10690(b)(2)]
   iii. For the mercury requirements in 40 CFR 63.10685(b): [40 CFR 63.10690(b)(3)]
      1) "This facility has prepared a site-specific plan for mercury switches in accordance with 40 CFR 63.10685(b)(1)"; [40 CFR 63.10690(b)(3)(i)]
      2) "This facility participates in and purchases motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the EPA Administrator in accordance with 40 CFR 63.10685(b)(2)" and has prepared a plan demonstrating how the facility participates in the EPA-approved program in accordance with 40 CFR 63.10685(b)(2)(iv); [40 CFR 63.10690(b)(3)(ii)]
      3) "The only materials from motor vehicles in the scrap charged to an electric arc furnace at this facility are materials recovered for their specialty alloy content in accordance with 40 CFR 63.10685(b)(3) which are not reasonably expected to contain mercury switches"; or [40 CFR 63.10690(b)(3)(iii)]
      4) "This facility complies with the requirements for scrap that does not contain motor vehicle scrap in accordance with 40 CFR 63.10685(b)(4)." [40 CFR 63.10690(b)(3)(iv)]
   iv. This certification of compliance for the capture system requirements in 40 CFR 63.10686(a), signed by a responsible official: "This facility operates a capture system for each electric arc furnace and argon-oxygen decarburization vessel that conveys the

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collected emissions to a PM control device in accordance with 40 CFR 63.10686(a)". [40 CFR 63.10690(b)(4)]

v. If applicable, this certification of compliance for the performance test requirements in 40 CFR 63.10686(d)(6): "This facility certifies initial compliance with the applicable emissions limit in 40 CFR 63.10686(a) or (b) based on the results of a previous performance test in accordance with 40 CFR 63.10686(d)(6)". [40 CFR 63.10690(b)(5)]

vi. This certification of compliance for the monitoring requirements in 40 CFR 63.10686(e), signed by a responsible official: "This facility has developed and submitted proposed monitoring information in accordance with 40 CFR part 64". [40 CFR 63.10690(b)(6)]

m. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring under CAM (Appendix A) did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Division and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 CFR 64.7(e)]

n. The permittee shall include, in the semi-annual report, any time that the emission units listed above were not operated according to the GCOP plan or GWP plan required by **1. Operating Limitations (q)** and **(t)** with a description of the situation and actions taken to remedy the issue. Refer to **5. Specific Recordkeeping Requirements (i)**. [401 KAR 52:020, Section 10]

o. The permittee shall submit, within 180 days of startup, certification that the design elements proposed as BACT for the emission points listed above have been implemented in the final construction. [401 KAR 51:017]

p. For EPs 01-01, and 20-01, the permittee shall conduct the compliance demonstration for **3. Testing Requirements (r)** and submit a written report of the results of the test. This report shall include the following information:

i. List of charge and tap weights and materials;
ii. Heat times, including start and stop times and process log;
iii. Control device operation log; and
iv. Method 9 data.

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

7. Specific Control Equipment Operating Conditions:

a. A bag leak detection system must be installed on all single-stack fabric filters and operated whenever the control device is being used to remove particulate matter from the EAF or AOD vessel if the permittee elects not to install and operate a continuous opacity

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monitoring system as provided for under 40 CFR 60.273a(c) . In addition, the permittee shall meet the visible emissions observation requirements in 40 CFR 60.273a(c). The bag leak detection system must meet the specifications and requirements of 40 CFR 60.273a(e)(1) through (8). [40 CFR 60.273a(e)]

i. The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less. [40 CFR 60.273a(e)(1)]
ii. 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 electronic or other means (e.g., using a strip chart recorder or a data logger.) [40 CFR 60.273a(e)(2)]
iii. The bag leak detection system must be equipped with an alarm system that will activate when an increase in relative particulate loading is detected over the alarm set point established according to 40 CFR 60.273(e)(4), and the alarm must be located such that it can be identified by the appropriate plant personnel. [40 CFR 60.273a(e)(3)]
iv. For each bag leak detection system required by 40 CFR 60.273a(e), the permittee shall develop and submit to the Division, for approval, a site-specific monitoring plan that addresses the items identified in 40 CFR 60.273a(e)(4)(i) through (v). For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall be consistent with the recommendations contained in EPA–454/R–98–015, Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see 40 CFR 60.17). The permittee shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan shall describe the following: [40 CFR 60.273a(e)(4)]
    1) Installation of the bag leak detection system; [40 CFR 60.273a(e)(4)(i)]
    2) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established; [40 CFR 60.273a(e)(4)(ii)]
    3) Operation of the bag leak detection system including quality assurance procedures; [40 CFR 60.273a(e)(4)(iii)]
    4) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list; and [40 CFR 60.273a(e)(4)(iv)]
    5) How the bag leak detection system output shall be recorded and stored. [40 CFR 60.273a(e)(4)(v)]
v. The initial adjustment of the system shall, at a 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 and the alarm delay time (if applicable). [40 CFR 60.273a(e)(5)]
vi. Following initial adjustment, the permittee shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Division except as provided for in 40 CFR 60.273a(e)(6)(i) and (ii). [40 CFR 60.273a(e)(6)]
    1) Once per quarter, the permittee may adjust the sensitivity of the bag leak detection system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific monitoring plan required under 40 CFR 60.273a(e)(4). [40 CFR 60.273a(e)(6)(i)]

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2) If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required under 40 CFR 60.273a(c) and the alarm on the bag leak detection system alarm is not activated, the permittee shall lower the alarm set point on the bag leak detection system to a point where the alarm would have been activated during the period when the opacity observations were made. [40 CFR 60.273a(e)(6)(ii)]

vii. For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detection sensor must be installed downstream of the baghouse or upstream of any wet scrubber. [40 CFR 60.273a(e)(7)]

viii. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [40 CFR 60.273a(e)(8)]

b. For each bag leak detection system installed according to 40 CFR 60.273a(e), the permittee shall initiate procedures to determine the cause of all alarms within 1 hour of an alarm. The cause of the alarm must be alleviated within 24 hours of the time the alarm occurred by taking whatever response action(s) are necessary. Response actions may include, but are not limited to, the following: [40 CFR 60.273a(f)]
   i. Inspecting the baghouse for air leaks, torn or broken bags or filter media or any other condition that may have caused an increase in particulate emissions; [40 CFR 60.273a(f)(1)]
   ii. Sealing off defective bags or filter media; [40 CFR 60.273a(f)(2)]
   iii. Replacing defective bags or filter media or otherwise repairing the control device; [40 CFR 60.273a(f)(3)]
   iv. Sealing off a defective baghouse compartment; [40 CFR 60.273a(f)(4)]
   v. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; [40 CFR 60.273a(f)(5)]
   vi. Establishing to the extent acceptable by the Division that the alarm was a false alarm and not caused by a bag leak or other malfunction that could reasonably result in excess particulate emissions; and [40 CFR 60.273a(f)(6)]
   vii. Shutting down the process producing the particulate emissions. [40 CFR 60.273a(f)(7)]

c. In approving the site-specific monitoring plan required in 40 CFR 60.273a(e)(4), the Division may allow the permittee more than 24 hours to alleviate specific conditions that cause an alarm if the permittee identifies the condition that could lead to an alarm in the monitoring plan, adequately explains why it is not feasible to alleviate the condition within 24 hours of the time the alarm occurred, and demonstrates that the requested additional time will ensure alleviation of the condition as expeditiously as practicable. [40 CFR 60.273a(g)]

d. The permittee shall maintain the following records for each bag leak detection system required under 40 CFR 60.273a(e): [40 CFR 60.276a(h)]
   i. Records of the bag leak detection system output; [40 CFR 60.276a(h)(1)]
   ii. 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 60.276a(h)(2)]

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iii. An identification of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 24 hours of the alarm. [40 CFR 60.276a(h)(3)]

e. The control devices associated with the emission units listed above shall be properly maintained, kept in good operating condition, used in conjunction with operation of the underlying emission units and operated consistent with the manufacturer's specifications. [401 KAR 51:017]

f. For the baghouses associated with Melt Shop #1 & #2 (EU 01 & EU 20), the permittee shall continuously monitor the volumetric flow rate in the stack, and maintain the volumetric flow rate (in standard conditions) above the minimum level minus 10% measured during the testing required in **3. Testing Requirements (u)** during normal operations. [401 KAR 51:017]

g. For all emission units listed above, other than those identified as not being equipped with a control device, the permittee shall install, calibrate, maintain and operate, according to manufacturer's specifications, fabric filters designed to achieve the BACT limits in **2. Emission Limitations.** [401 KAR 51:017]

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

i. For Melt Shop #1 Baghouse #1 & #2 Dust Silo & Railcar Loading (EP 10-06) – the permittee shall operate and maintain a dust collector designed to control particulate grain loading to 0.005 grain/dscf and the flow rate to 1,200 dscf/min. [401 KAR 51:017]

j. For Melt Shop #2 Baghouse #3 Dust Silo & Railcar Loading (EP 10-07) – the permittee shall operate and maintain a dust collector designed to control particulate grain loading to 0.005 grain/dscf and the flow rate to 100 dscf/min. [401 KAR 51:017]

k. The following submittal is required within 60 days after achieving the maximum production rate at which EP 20-01 will be operated, but not later than 180 days after initial startup of such facility: For each bag leak detection system required by 40 CFR 60.273a(e), the permittee shall develop and submit to the Division, for approval, a site-specific monitoring plan that addresses the items identified in 40 CFR 60.273a(e)(4)(i) through (v). For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015). The permittee shall operate and maintain the bag leak

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detection system according to the site-specific monitoring plan at all times. The plan shall describe the following: [40 CFR 60.273a(e)(4)]

i. Installation of the bag leak detection system; [40 CFR 60.273a(e)(4)(i)]
ii. Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established; [40 CFR 60.273a(e)(4)(ii)]
iii. Operation of the bag leak detection system including quality assurance procedures; [40 CFR 60.273a(e)(4)(iii)]
iv. How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list; and [40 CFR 60.273a(e)(4)(iv)]
v. How the bag leak detection system output shall be recorded and stored. [40 CFR 60.273a(e)(4)(v)]

l. Refer to **Section E.**

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

Group 2

Emission Unit (EU 02) - Hot Rolling Mill

Emission Point #	Unit Name	Maximum Short-Term Capacity	Maximum Long-Term Capacity	Burner Maximum Capacity (MMBtu/hr)	Control Device	Construction Commenced
Emission Unit 02 (EU 02) – Hot Rolling Mill						
02-01	A-Line Tunnel Furnace (formerly Slab Reheat Tunnel Furnace) – 0R1	500 tons/hr	3,500,000 tons/yr*	104.3 MMBtu/hr	None	4/1995; Modified 2020
02-02	B-Line Tunnel Furnace	500 tons/hr	3,500,000 tons/yr*	163.1 MMBtu/hr	None	2020
02-03	Heated Transfer Table Furnace	500 tons/hr	3,500,000 tons/yr*	65.5 MMBtu/hr	None	2020
02-04	2-Stand Roughing Mill	500 tons/hr	3,500,000 tons/yr*	----	None	2020
02-05	6-Stand Finishing Mill	500 tons/hr	3,500,000 tons/yr*	----	None	1995; Modified 2019
02-06	Material Handling Sample Line Plasma Cutter	500 tons/hr	3,500,000 tons/yr*	----	Baghouse	2019
02-07	Rolling Mill Inspection Line Plasma Cutter	500 tons/hr	3,500,000 tons/yr*	----	Baghouse	2020

*Note: Long-term capacities of these units are bottlenecked by the upstream operational limit on the melt shops.

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality*
401 KAR 59:010, *New process operations*

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

1. **Operating Limitations:**
   a. The permittee shall use only natural gas as fuel in EPs 02-01, 02-02, and 02-03. [401 KAR 51:017]

   b. EPs 02-01, 02-02 and 02-03 shall be equipped with low NO_x burners (burners designed to maintain 0.07 lb/MMBtu and the standards in **2. Emission Limitations (b)**. [401 KAR 51:017]

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

c. For EP 02-01, the total natural gas use shall not exceed 74.6 MMcf/month, averaged over a three-month rolling period, and 896 MMcf/yr on a 12-month rolling basis. [401 KAR 51:017]

d. For EP 02-02, the total natural gas use shall not exceed 116.75 MMcf/month, averaged over a three-month rolling period, and 1,401 MMcf/yr on a 12-month rolling basis. [401 KAR 51:017]

e. For EP 02-03, the total natural gas use shall not exceed 46.9 MMcf/month, averaged over a three-month rolling period, and 563 MMcf/yr on a 12-month rolling basis. [401 KAR 51:017]

Compliance Demonstration Method:
Refer to **4. Specific Monitoring Requirements (a)**, **5. Specific Recordkeeping Requirements (a),** and **6. Specific Reporting Requirements (b).**

f. For EPs 02-04, 02-05, 02-06 and 02-07 the permittee shall prepare and implement, upon initial compliance demonstration but no later than 90 days after startup, a Good Work Practices (GWP) plan that includes written operating instructions and procedures that specify good operating and maintenance practices and includes, at a minimum, the following specific practices targeting PM, PM_{10}, $PM_{2.5}$, NO_x, and VOC emission minimization, and a means of verifying the practices have occurred: [401 KAR 51:017]
   i. For EP 02-04 and EP 02-05, performing periodic maintenance to minimize leaks of oil and grease from seals and bearings.
   ii. Tracking material usage to ensure that equipment is operated as designed and correcting any operating or design issues as quickly as possible.
   iii. Employing a preventative maintenance program, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Compliance Demonstration Method:
Refer to **5. Specific Recordkeeping Requirements (a)** and **(b)**, and **6. Specific Reporting Requirements (a)**.

g. The permittee shall prepare and maintain for EPs 02-01, 02-02, and 02-03 within 90 days of startup, a good combustion and operation practices (GCOP) plan that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing PM, PM_{10}, $PM_{2.5}$, Lead, NO_x, CO, SO_2, VOC, and GHG emissions. Any revisions to the GCOP plan requested by the Division shall be made and the revisions shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]
   i. A list of combustion optimization practices and a means of verifying the practices have occurred.

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

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 **5. Specific Recordkeeping Requirements (a)** and **(b)**, and **6. Specific Reporting Requirements (a)**.

h. The permittee shall meet the following design and operational requirements for EPs 02-01, 02-02, and 02-03 as the BACT determination for GHG: [401 KAR 51:017]
i. Use only pipeline quality natural gas.
ii. The facility design shall include low-NOx recuperative burners to preheat the combustion air with heat from the exhaust gas.
iii. Conduct periodic calibration of gas supply system in accordance with manufacturer's recommended procedures and schedule.
iv. Conduct periodic thermography readings of furnace shell in areas recommended by the manufacturer and according to the schedule recommended by the manufacturer (at least annually).
v. Install and maintain seals and modern insulation media to minimize heat losses from the furnace hearth, upper and lower sidewalls, doors, roof, and any openings around the burners or other equipment traversing through the furnace shell.
vi. Maintain gas supply valves in accordance with the manufacturer's recommended procedures and schedule.
vii. Install, operate, and maintain a combustion system that includes air-to-fuel ratio control for improved fuel efficiency.
viii. Implement burner temperature control to achieve optimum temperature uniformity.

Compliance Demonstration Method:
Compliance shall be demonstrated as follows:
A. The facility construction shall be completed in accordance with the BACT determination for GHGs and incorporating the design elements listed above. Refer to **6. Specific Reporting Requirements (b)**.
B. The permittee shall prepare, maintain, and implement the GCOP plan. Refer to **1. Operating Limitations (g)**.

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

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

b. ***Particulate and Lead (Pb) Emission Standard:*** The permittee shall not discharge or cause to be discharged into the atmosphere any gases which exceed the following limits:

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

1) For process weight rates ≤ 0.50 ton/hr: 2.34 lb/hr
2) For process weight rates > 0.50 ton/hr up to 30.00 tons/hr: $E = 3.59 * P^{0.62}$
3) For process weight rates > 30.00 tons/hr: $E = 17.3 * P^{0.16}$

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

ii. Emissions of Lead (Pb), PM, PM_{10}, and $PM_{2.5}$ shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for Lead	BACT for PM (filterable)	BACT for PM_{10}	BACT for $PM_{2.5}$
02-01	A-Line Tunnel Furnace	0.0005 lb/MMscf 2.2×10^{-4} ton/yr	1.9 lb/MMscf; 0.85 ton/yr	7.6 lb/MMscf 3.40 ton/yr	7.6 lb/MMscf 3.40 ton/yr
02-02	B-Line Tunnel Furnace	0.0005 lb/MMscf 3.5×10^{-4} ton/yr	1.9 lb/MMscf; 1.33 ton/yr	7.6 lb/MMscf 5.32 ton/yr	7.6 lb/MMscf 5.32 ton/yr
02-03	Heated Transfer Table Furnace	0.0005 lb/MMscf 1.4×10^{-4} ton/yr	1.9 lb/MMscf; 0.53 ton/yr	7.6 lb/MMscf 2.14 ton/yr	7.6 lb/MMscf 2.14 ton/yr
02-04	2-Stand Roughing Mill	N/A	1.98×10^{-4} gr/dscf; 0.13 lb/hr; 0.55 ton/yr	2.26×10^{-4} gr/dscf; 0.14 lb/hr; 0.63 ton/yr	8.80×10^{-5} gr/dscf; 0.06 lb/hr; 0.24 ton/yr
02-05	6-Stand Finishing Mill	N/A	1.94×10^{-4} gr/dscf; 0.99 lb/hr; 4.42 ton/yr	2.22×10^{-4} gr/dscf; 1.13 lb/hr; 5.04 ton/yr	8.65×10^{-5} gr/dscf; 0.44 lb/hr; 1.96 ton/yr
02-06	Material Handling Sample Line Plasma Cutter	N/A	0.04 lb/hr; 0.19 ton/yr	0.04 lb/hr; 0.19 ton/yr	0.04 lb/hr; 0.19 ton/yr
02-07	Rolling Mill Inspection Line Plasma Cutter	N/A	0.04 lb/hr; 0.19 ton/yr	0.04 lb/hr; 0.19 ton/yr	0.04 lb/hr; 0.19 ton/yr

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the emission standards listed above as follows:

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

A. Compliance with **2. Emission Limitations (b)(i)** is assumed when complying with **2. Emission Limitations (b)(ii)**.
B. Compliance with **2. Emission Limitations (b)(ii)** will be demonstrated as follows:
   1) For EPs 02-01, 02-02, and 02-03, the permittee shall meet the requirements in **1. Operating Limitations (a), (c) – (e)** and **(g)**, **4. Specific Monitoring Requirements (a), 5. Specific Recordkeeping Requirements (a)** and **(b), 6. Specific Reporting Requirements (a)** and **(b)**.
   2) For EPs 02-04 and 02-05, the permittee shall meet the requirements in **1. Operating Limitations (f)**, **4. Specific Monitoring Requirements (a),** and **5. Specific Recordkeeping Requirements (a)** and **(b)**.
   3) For EPs 02-06 and 02-07, the permittee shall meet the requirements in **1. Operating Limitations (f), 4. Specific Monitoring Requirements (a), 5. Specific Recordkeeping Requirements (a)** and **(b)**, **7. Specific Control Equipment Operating Conditions.**

c. ***CO, NO_x, SO_2, and GHG Emission Standard:*** Emissions of CO, NO_x, SO_2, and GHG shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for CO	BACT for NO_x	BACT for SO_2	BACT for GHG (CO_2e)
02-01	A-Line Tunnel Furnace	84 lb/MMscf; 37.62 ton/yr	70 lb/MMscf; 31.35 ton/yr	0.6 lb/MMscf; 0.27 ton/yr	54,065 ton/yr
02-02	B-Line Tunnel Furnace	84 lb/MMscf; 58.83 ton/yr	70 lb/MMscf; 49.03 ton/yr	0.6 lb/MMscf; 0.42 ton/yr	84,544 ton/yr
02-03	Heated Transfer Table Furnace	84 lb/MMscf; 23.63 ton/yr	70 lb/MMscf; 19.69 ton/yr	0.6 lb/MMscf 0.17 ton/yr	33,952 ton/yr
02-04	2-Stand Roughing Mill	N/A	N/A	N/A	301 ton/yr
02-05	6-Stand Finishing Mill	N/A	N/A	N/A	904 ton/yr
02-06	Material Handling Sample Line Plasma Cutter	N/A	0.81 lb/hr; 3.56 ton/yr	N/A	N/A
02-07	Rolling Mill Inspection Line Plasma Cutter	N/A	0.81 lb/hr; 3.56 ton/yr	N/A	N/A

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the 401 KAR 51:017 emission limitations for CO, NO_x, SO_2, and GHGs as follows:
A. For EPs 02-01, 02-02, and 02-03, the permittee shall meet the requirements in **1. Operating Limitations (a) – (e), (g)** and **(h)**, **4. Specific Monitoring Requirements**

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

(a), 5. Specific Recordkeeping Requirements (a) and **(b), 6. Specific Reporting Requirements (a)** and **(b)**.

B. For EPs 02-04, 02-05, 02-06, and 02-07, the permittee shall meet the requirements in **1. Operating Limitations (f)**, **4. Specific Monitoring Requirements (a),** and **5. Specific Recordkeeping Requirements (a)** and **(b)**, and **6. Specific Reporting Requirements (a).**

d. ***VOC Emission Standard***: Emissions of VOC shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for VOC
02-01	A-Line Tunnel Furnace	5.5 lb/MMscf; 2.46 ton/yr
02-02	B-Line Tunnel Furnace	5.5 lb/MMscf; 3.85 ton/yr
02-03	Heated Transfer Table Furnace	5.5 lb/MMscf; 1.56 ton/yr
02-04	2-Stand Roughing Mill	1.81 lb/hr; 7.90 ton/yr
02-05	6-Stand Finishing Mill	6.78 lb/hr; 23.71 ton/yr

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the 401 KAR 51:017 emission limitations for VOC as follows:

A. For EPs 02-01, 02-02, and 02-03, the permittee shall meet the requirements in **1. Operating Limitations (a) – (e), (g)** and **(h)**, **4. Specific Monitoring Requirements (a), 5. Specific Recordkeeping Requirements (a)** and **(b), 6. Specific Reporting Requirements (a)** and **(b)**.

B. For EPs 02-04, 02-05, 02-06, and 02-07, the permittee shall meet the requirements in **1. Operating Limitations (f)**, **4. Specific Monitoring Requirements (a),** and **5. Specific Recordkeeping Requirements (a)** and **(b),** and **6. Specific Reporting Requirements (a).**

e. The permittee shall not allow the emission units listed above 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. [401 KAR 63:020, Section 3]

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

f. Refer to **SECTION D**.

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

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

4. Specific Monitoring Requirements:

a. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation for EPs 02-04, 02-05, 02-06, and 02-07;
   ii. Monthly and 12-month rolling process weight rate (tons) for each emission point;
   iii. For EP 02-01, EP 02-02, and EP 02-03, the monthly and 12-month rolling natural gas combusted (MMscf) in each emission point;
   iv. For EP 02-04 and EP 02-05, the monthly and 12-month rolling tons of steel rolled and oil and grease consumption;

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation for EPs 02-04, 02-05, 02-06, and 02-07;
   ii. Monthly and 12-month rolling process weight rate (tons) for each emission point;
   iii. For EP 02-01, EP 02-02, and EP 02-03, the monthly and 12-month rolling natural gas combusted (MMscf) in each emission point;
   iv. For EP 02-04 and EP 02-05, the monthly and 12-month rolling tons of steel rolled and oil and grease consumption;
   v. The VOC content of the oil & grease used in EP 02-04 and EP 02-05;
   vi. The monthly and 12-month rolling emissions of PM, PM_{10}, $PM_{2.5}$, NO_x, CO, SO_2, VOC, Pb, and GHGs.
   vii. 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.
   viii. The GCOP plan required by **1. Operating Limitations (g)** as well as any revisions;
   ix. The GWP plan required by **1. Operating Limitations (f)** as well as any revisions;

b. The permittee shall maintain records of any time that an emission point listed above was not operated according to the GCOP plan or the GWP plan required by **1. Operating Limitations (f)** and **(g)** with a description of the situation and actions taken to remedy the issue. [401 KAR 51:017]

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

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

6. Specific Reporting Requirements:

a. The permittee shall include, in the semi-annual report, any time that that an emission point listed above was not operated according to the GCOP plan or GWP plan required by **1. Operating Limitations (f)** and **(g)** with a description of the situation and actions taken to remedy the issue. Refer to **5. Specific Recordkeeping Requirements (b)**. [401 KAR 51:017]

b. The permittee shall submit, within 180 days of startup, certification that the design elements proposed as BACT for the emission points listed above have been implemented in the final construction. [401 KAR 51:017]

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

7. Specific Control Equipment Operating Conditions:

For EPs 02-06 and 02-07, the permittee shall install, operate, and maintain a dust collector in accordance with manufacturer's specifications and that is designed to meet the limitations in **2. Emission Limitations (b)**. Refer to **Section E**.

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

Group 3

Emission Unit 03 (EU 03) – Cooling Towers – 0T1

Emission Point #	Unit Name	Maximum Capacity	Drift Loss	Number of Cells	Control Device	Construction Commenced
Emission Unit 03 (EU 03) – Cooling Towers – 0T1						
03-02	Cooling Tower #2 (Direct)	56,000 gal/min*	0.01%	2	Mist Eliminator	4/1995
03-03	Cooling Tower #3 (Indirect)	154,684 gal/min*	0.01%	3	Mist Eliminator	4/1995
03-04	Cooling Tower #4 (Indirect)	12,000 gal/min	0.001%	5	Mist Eliminator	2005
03-08	PGL Cooling Tower	8,000 gal/min	0.001%	6	Mist Eliminator	2017
03-09	Laminar Cooling Tower - Hot Mill Cells	35,000 gal/min*	0.001%	2	Mist Eliminator	2020
03-10	Direct Cooling Tower – Caster & Roughing Mill Cells	26,300 gal/min*	0.001%	7	Mist Eliminator	2020
03-11	Melt Shop #2 Cooling Tower (Indirect)	59,500 gal/min*	0.001%	3	Mist Eliminator	2020
03-13	Air Separation Plant Cooling Tower	15,000 gal/min*	0.001%	3	Mist Eliminator	2020
03-14	DCW Auxiliary Cooling Tower	9,250 gal/min*	0.001%	2	Mist Eliminator	2020

*Note: These units have an operational limit in **1. Operating Limitations**, below.

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality*, applies to EP 03-02, 03-03, 03-09, 03-10, 03-11, 03-13, and 03-14.

401 KAR 59:010, *New process operations*

PRECLUDED REGULATIONS:

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

1. Operating Limitations:

a. The use of chromium based water treatment chemicals in the cooling towers (EU03) is prohibited. [To preclude 40 CFR 63, Subpart Q]

Compliance Demonstration Method:

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

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

b. For EP 03-02: Water flow rate to Cooling Tower #2 (Direct) shall not exceed 56,000 gallons per minute. Total dissolved solids concentration shall not exceed 1,309 ppm. The mist eliminator drift loss shall be maintained at 0.01% or less to total gpm. [401 KAR 51:017]

c. For EP 03-03: Water flow rate to Cooling Tower #3 (Indirect) shall not exceed 154,684 gallons per minute. Total dissolved solids concentration shall not exceed 1,050 ppm. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm. [401 KAR 51:017]

d. For EP 03-09: Water flow rate to the laminar cooling tower Hot Mill Cells shall not exceed 35,000 gallons per minute. Total dissolved solids concentration shall not exceed 1,729 ppm. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm. [401 KAR 51:017]

e. For EP 03-10: Water flow rate to the direct cooling tower Caster & Roughing Mill Cells shall not exceed 26,300 gallons per minute. Total dissolved solids concentration shall not exceed 1,309 ppm. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm. [401 KAR 51:017]

f. For EP 03-11: Water flow rate to the Melt Shop #2 Cooling Tower (Indirect) shall not exceed 59,500 gallons per minute. Total dissolved solids concentration shall not exceed 1,365 ppm. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm. [401 KAR 51:017]

g. For EP 03-13: Water flow rate to the Air Separation Plant Cooling Tower shall not exceed 15,000 gallons per minute. Total dissolved solids concentration shall not exceed 1,125 ppm. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm. [401 KAR 51:017]

h. For EP 03-14: Water flow rate to the DCW Auxiliary Cooling Tower shall not exceed 9,250 gallons per minute. Total dissolved solids concentration shall not exceed 1,309 ppm. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm. [401 KAR 51:017]

Compliance Demonstration Method:

The total flow for each cooling tower system (EPs 03-02, 03-03, 03-09, 03-10, 03-11, 03-13, and 03-14) will be calculated using the sum of the flow of each pump returning and/or supplying water to each of the specific systems. The flow for individual pumps will be calculated by monitoring the common header pressure each pump is connected to, compensating the header pressure for any losses and/or gains in pressure due to significant pipe fittings, elevation changes, and suction head pressures, that will affect the performance of each pump, and correlating the resulting total dynamic head pressure for each specific pump to the manufacture design flow rate. The resulting flow determined for each pump on a specific cooling tower system will be summed together to determine the total return

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

flow for that system back to each of the cooling tower systems (03-02, 03-03, 03-09, 03-10, 03-11, 03-13, and 03-14)The permittee shall use the following equations:

$Q_{System} = \sum Q_{Pumps}$ = Total flow for a specific cooling tower system (03-02, 03-03, 03-09, 03-10, 03-11, 03-13, and 03-14). This is the sum of all pumps connected to a distinct cooling tower system.

Q_{pumps} = Manufacturers design flow rate at total dynamic head (TDH_P) condition for each pump. This is based on the manufacturers pump curves required to be kept by **5. Specific Recordkeeping Requirements (d).**

Where:

$$TDH_P = P_S * (2.31\ ft_{H2O}/psi) \pm P_{SUC} \pm P_{DIS}$$

And:

P_S = Pressure of the specific system header for the pump (psig)
P_{SUC} = Suction head (+) or suction lift (-)for the pump (ft_{H2O})
P_{DIS} = Discharge head (± based on elevation changes and fittings) (ft_{H2O})

Refer to **4. Specific Monitoring Requirements (a), (b),** and **(c),** and **5. Specific Recordkeeping Requirements (a)** and **(b).** Alternatively, the permittee may install, operate, and maintain flow meters to monitor the total return flow from the system back to each of the cooling tower systems.

i. The permittee shall perform regular cooling tower maintenance as recommended by the vendor to assure that the drift loss is maintained at all times.

Compliance Demonstration Method:
Refer to **5. Specific Recordkeeping Requirements (c).**

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. Specific Monitoring Requirements (d)** and **5. Specific Recordkeeping Requirements (e).**

b. ***Particulate Emission Standard:*** The permittee shall not discharge or cause to be discharged into the atmosphere any gases which exceed the following limits:
   i. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2), Appendix A]
      1) For process weight rates ≤ 0.50 ton/hr: 2.34 lb/hr
      2) For process weight rates > 0.50 ton/hr up to 30.00 tons/hr: $E = 3.59 * P^{0.62}$

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

3) For process weight rates > 30.00 tons/hr: $E = 17.3 * P^{0.16}$
   Where:
   E = the allowable PM emissions rate (pounds/hr)
   P = the process weight rate (tons/hr)

ii. Emissions of PM, PM_{10}, and $PM_{2.5}$ shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for PM (filterable)	BACT for PM_{10}	BACT for $PM_{2.5}$
03-02	Cooling Tower #2 (Direct)	3.75 lb/hr	N/A	N/A
03-03	Cooling Tower #3 (Indirect)	0.81 lb/hr	N/A	N/A
03-09	Laminar Cooling Tower – Hot Mill Cells	0.27 lb/hr; 1.18 ton/yr	0.19 lb/hr; 0.87 ton/yr	0.0006 lb/hr; 0.0026 ton/yr
03-10	Direct Cooling Tower – Caster & Roughing Mill Cells	0.17 lb/hr; 0.75 ton/yr	0.14 lb/hr; 0.60 ton/yr	0.0004 lb/hr; 0.0017 ton/yr
03-11	Melt Shop #2 Cooling Tower (Indirect)	0.39 lb/hr; 1.71 ton/yr	0.29 lb/hr; 1.27 ton/yr	0.0008 lb/hr; 0.0030 ton/yr
03-13	Air Separation Plant Cooling Tower	0.08 lb/hr; 0.37 ton/yr	0.07 lb/hr; 0.32 ton/yr	0.0002 lb/hr; 0.0008 ton/yr
03-14	DCW Auxiliary Cooling Tower	0.06 lb/hr; 0.27 ton/yr	0.05 lb/hr; 0.21 ton/yr	0.0001 lb/hr; 0.0006 ton/yr

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the emission standards listed above as follows:

A. For EPs 03-02, 03-03, 03-09, 03-10, 03-11, 03-13, and 03-14: compliance with **2. Emission Limitations (b)(i)** is assumed when complying with **2. Emission Limitations (b)(ii)**.

B. For EPs 03-02, 03-03, 03-09, 03-10, 03-11, 03-13, and 03-14: compliance with **2. Emission Limitations (b)(ii)** will be demonstrated by meeting the requirements in **1. Operating Conditions (b) – (j), 4. Specific Monitoring Requirements,** and **5. Specific Recordkeeping Requirements.**

C. For EPs 03-04, 03-07, and 03-08, the permittee shall demonstrate compliance with **2. Emission Limitations (b)(i)** by calculating the process weight rate and the hourly emissions of PM, monthly, for comparison to the standard using the following formulas:

$$P_{wr} = C_w * 8.34\ lb/gal * TDS * \frac{60\ min/hr}{2000\ lb/ton}$$

$$E_{PM} = C_w * 8.34 \frac{lb}{gal} * TDS * D * 60\ min/hr$$

Where,

P_{wr} = the process weight rate in ton/hr
C_w = water circulation rate in gal/min
TDS = Total dissolved solids in lb solids/lb water

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

E_{PM} = the actual PM emission rate from the cooling tower in lb/hr
D = Drift Rate

c. Refer to **SECTION D**.

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

4. Specific Monitoring Requirements:

a. The permittee shall monitor the total dissolved solids concentration or conductivity in the cooling towers' water weekly. [401 KAR 52:020, Section 10]

b. The permittee shall monitor the gallon per minute throughputs of EPs 03-02, 03-03, 03-09, 03-10, 03-11, 03-13, and 03-14 on a daily basis using the method in **1. Operating Limitations (b), (c), (d), (e), (f), (g), (h)** and **(i) Compliance Demonstration Method**. [401 KAR 52:020, Section 10]

c. The permittee shall monitor the common header pressure each pump is connected to or the total return flow rate for the system. [401 KAR 52:020, Section 10]

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the most current cooling towers' TDS or conductivity. [401 KAR 52:020, Section 10]

b. The permittee shall maintain records of the daily average gallon per minute throughputs for EPs 03-02, 03-03, 03-09, 03-10, 03-11, 03-13, and 03-14 calculated using the equation in **1. Operating Limitations (b) - (i) Compliance Demonstration Method**. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of maintenance on the cooling towers and mist eliminators. [401 KAR 52:020, Section 10]

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

d. The permittee shall maintain records of the manufacturer provided pump curves used for the calculations in **1. Operating Limitations (b) - (i) Compliance Demonstration Method**. [401 KAR 52:020, Section 10]

e. The permittee shall maintain 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]

f. The permittee shall maintain records of water treatment chemical purchases, including invoices and other documentation that includes invoices and other documentation that includes date(s) of purchase or shipment, trade name or other information to identify composition of the product, and quantity of the product. [To preclude 40 CFR 63, Subpart Q]

g. The permittee shall maintain records of the monthly and 12-month rolling emissions of PM, PM_{10}, and $PM_{2.5}$. [401 KAR 52:020, Section 10]

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

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

a. The permittee shall install, operate, and maintain mist eliminators capable of controlling emissions to the requirements in **1. Operating Limitations (b)** through **(i)**. The permittee shall verify this by maintaining manufacturer's certifications or performing testing. [401 KAR 51:017]

b. Refer to **SECTION E**.

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

Group 4

Emission Unit 04 (EU 04) – Existing Roads – 0RP

Emission Point #	Unit Name	Maximum Size	Paved or Unpaved	Controls	Construction Commenced
Emission Unit 04 (EU 04) – Existing Roads – 0RP					
04-05	Unpaved Roadways	2.34 miles	Unpaved	Wetting	7/1975; Modified 2022
04-06	Paved Roadways	5.01 miles	Paved	Wetting	7/1975; Modified 2022

Description: Various paved and unpaved roads within the PSD-prescribed source boundary. Unpaved Roads for transporting material between the melt shop and slag processing.

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 may pave any of the unpaved roads (EP 04-05) without permits from this Division. This does not authorize the extension, or construction, of any additional plant roads.

   b. The permittee shall not cause, suffer, or allow a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      i. 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)]
      ii. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
      iii. The maintenance of paved roadways in a clean condition; or [401 KAR 63:010, Section 3(1)(e)]
      iv. The prompt removal of earth or other material from a paved street 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 UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

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

2. Emission Limitations:

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

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

b. Refer to **SECTION D**.

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

4. Specific Monitoring Requirements:

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

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

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

5. Specific Recordkeeping Requirements:

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

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

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

ii. Any corrective action taken and the results.

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

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

7. Specific Control Equipment Operating Conditions:
The permittee shall employ a combination of the following to control fugitive dust emissions: sweeping and watering for paved roads, watering and the use of dust suppressants on unpaved roads. Refer to **SECTION E**. [401 KAR 51:017]

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

Group 5

Emission Unit 05 (EU 05) – Barge Terminal – 0BL &
Emission Unit 06 (EU 06) – LMF Alloy Handling & Storage – 0P1

Emission Point #	Unit Name	Maximum Short-Term Capacity	Maximum Long-Term Capacity	Materials	Controls	Construction Commenced
Emission Unit 05 (EU 05) – Barge Terminal						
05-01	Barge Loading	2,000 tons/hr	3,500,000 tons/yr*	Coal, coke, silicon, gypsum, bark mulch, slag, steel coils	Dust Suppressant; Water	7/1975; 4/1986
05-02	Barge Unloading	600 tons/hr	2,764,840 tons/yr**	Steel scrap, coke, bark mulch, silicon metal, coal, alloys, scrap substitutes	Dust Suppressant; Water	7/1975; 4/1986
05-03	River & Plant Scrap Yard Stockpile Unloading	250 tons/hr	2,161,105 ton/yr	Coal, coke, steel scrap, scrap substitutes, alloys, silicon, gypsum, bark mulch	Dust Suppressant; Water	7/1975; 4/1986
05-04	River & Plant Scrap Yard Stockpile Loading	600 tons/hr	2,161,105 ton/yr	Coal, coke, steel scrap, scrap substitutes, alloys, silicon, gypsum, bark mulch	Dust Suppressant; Water	7/1975; 4/1986
05-05	River & Plant Scrap Yard Stockpiles	600 tons/hr	2,161,105 ton/yr	Coal, coke, steel scrap, scrap substitutes, alloys, silicon, gypsum, bark mulch	Dust Suppressant; Water	7/1975; 4/1986
Emission Unit 06 (EU 06) – LMF Alloy Handling & Storage – 0P1						
06-01	Alloy Storage Piles	8 ton/hr	70,000 tons/yr**	Alloys	3-Sided Containment	4/1993

* Note: The long-term capacity of this unit is bottlenecked by the upstream operational limit on the melt shops.
**Note: The long-term capacity of this unit is bottlenecked by the material needed to reach the operational limit on the melt shops.

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

1. **Operating Limitations:**
   a. Barge Loading (EP 05-01) rate shall not exceed 2,000 tons per hour. [401 KAR 51:017]

   b. Barge Unloading (EP 05-02) rate shall not exceed 600 tons per hour. [401 KAR 51:017]

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

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

c. All alloy storage piles (EP 06-01) shall be enclosed on three sides with concrete walls. [401 KAR 51:017]

d. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored without taking reasonable precaution to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
   i. 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)]
   ii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling; [401 KAR 63:010, Section 3(1)(c)]

2. Emission Limitations:

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

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the fugitive emission standards listed above as follows:
A. Refer to **1. Operating Limitations (d).**
B. The permittee shall monitor the reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis.
C. Refer to **4. Specific Monitoring Requirements (d).**

b. Refer to **SECTION D**.

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

4. Specific Monitoring Requirements:

a. The permittee shall perform monthly operational status inspections of the affected facilities and dust suppression equipment. The observations shall include but not be limited to, the physical appearance of all equipment. [401 KAR 52:020, Section 10]

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

b. The permittee shall monitor the monthly and 12-month rolling throughputs for EPs 05-01 and 05-02. [401 KAR 52:020, Section 10]

c. 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]

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records documenting maintenance that was performed on dust suppression equipment. [401 KAR 52:020, Section 10]

b. Records shall be maintained of the monthly operational status inspections. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the monthly and 12-month rolling throughputs for EPs 05-01 and 05-02. [401 KAR 52:020, Section 10]

d. 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]

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

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

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

a. The permittee shall use water and/or surfactants to control fugitive dust. [401 KAR 51:017]

b. The permittee shall operate and maintain dust suppression equipment in accordance with manufacturer's specifications and/or standard operation practices. All deficiencies shall be noted and proper maintenance performed. [401 KAR 52:020, Section 10]

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

c. Refer to **SECTION E.**

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

Group 7

Emission Unit 07 (EU 07) – Parts Cleaning Tanks – 0D1

Description: Fourteen (14) parts cleaning tanks.
Construction Commenced: 1995
Controls: None
Hours of Operation: 8760 hours/yr

Emission Unit 19 (EU 19) – Slag Processing

EP 19-06 Slag Processing Part Cleaner (former IA-49)

Description: 80 Gal Agitation Unit.
Construction Commenced: 2001
Controls: None
Hours of Operation: 8760 hours/yr

APPLICABLE REGULATIONS:

401 KAR 59:185, *New solvent metal cleaning equipment*

1. **Operating Limitations:**
   a. Each cleaner shall be equipped with a cover. If the solvent volatility is greater than fifteen (15) mm Hg measured at 100°F or if the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with one (1) hand. [401 KAR 59:185, Section 4(1)(a)]

   b. The cleaner shall be equipped with a drainage facility so that solvent that drains off parts removed from the cleaner will return to the cleaner. If the solvent volatility is greater than thirty-two (32) mm Hg measured at 100°F then the drainage facility shall be internal so that parts are enclosed under the cover while draining. The drainage facility may be external if the cabinet determines that an internal type cannot fit into the cleaning system. [401 KAR 59:185, Section 4(1)(b)]

   c. A permanent, conspicuous label, summarizing the operating requirements specified in 401 KAR 59:185, Section (4)(2) shall be installed on or near the cleaner. [401 KAR 59:185, Section 4(1)(c)]

   d. If used, the solvent spray shall be a fluid stream, not a fine, atomized or shower type spray, and at a pressure that does not cause excessive splashing. [401 KAR 59:185, Section 4(1)(d)]

   e. If the solvent volatility is greater than thirty-two (32) mm Hg measured at 100°F or if the solvent is heated above 120°F, then one (1) of the following control devices shall be used: [401 KAR 59:185, Section 4(1)(e)]
      i. Freeboard height that gives a freeboard ratio greater than or equal to seven-tenths (0.7); [401 KAR 59:185, Section 4(1)(e)(1)]

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

ii. Water cover, solvent shall be insoluble in and heavier than water; or [401 KAR 59:185, Section 4(1)(e)(2)]
iii. Other systems of equivalent control, such as a refrigerated chiller or carbon adsorption. [401 KAR 59:185, Section 4(1)(e)(3)]

f. Waste solvent shall not be disposed of or transferred to another party so that greater than twenty (20) percent by weight of the waste solvent can evaporate into the atmosphere. Waste solvent shall be stored only in covered containers. [401 KAR 59:185, Section 4(2)(a)]

g. The degreaser cover shall be closed if not handling parts in the cleaner. [401 KAR 59:185, Section 4(2)(b)]

h. Cleaned parts shall be drained for a minimum of fifteen (15) seconds, or until dripping ceases, whichever is longer. [401 KAR 59:185, Section 4(2)(c)]

i. The flushing of parts with a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. The solvent flow shall be directed downward to avoid turbulence at the air-solvent interface so as to prevent the solvent from splashing outside of the cold cleaner. [401 KAR 59:185, Section 4(2)(d)]

j. Work area fans shall be positioned so that air is not directed across the opening of the cold cleaner. [401 KAR 59:185, Section 4(2)(e)]

k. The use of an air-agitated solvent bath is prohibited. A pump-agitated solvent bath shall be operated so as to produce no observable splashing of the solvent against either the tank wall or the parts that are being cleaned. [401 KAR 59:185, Section 4(2)(f)]

l. The cold cleaner shall be free of all liquid leaks. Auxiliary cleaning equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible leaks, tears, or cracks. [401 KAR 59:185, Section 4(2)(g)]

m. Spills that occur during solvent transfer shall be cleaned immediately. Wipe rags, or other absorbent equipment and materials, used to clean the spill shall be stored in a covered container for disposal unless storage of these items is prohibited by fire protection authorities. [401 KAR 59:185, Section 4(2)(h)]

n. The operation of a cold cleaner using a solvent with a vapor pressure that exceeds one (1.0) mmHg (0.019 psi) measured at 20° C (68° F) is prohibited. [401 KAR 59:185, Section 4(3)(b)]

2. Emission Limitations:
Refer to **SECTION D**.

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

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

a. The permittee shall monitor the storage and disposal of the waste solvent to ensure minimal loss due to evaporation. [401 KAR 52:020, Section 10]

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records for a minimum of five (5) years that include the following information for each solvent purchase: [401 KAR 59:185, Section 4(4)(b)]
   i. The name and address of the solvent supplier; [401 KAR 59:185, Section 4(4)(b)(1)]
   ii. The date of the purchase; [401 KAR 59:185, Section 4(4)(b)(2)]
   iii. The type of solvent; and [401 KAR 59:185, Section 4(4)(b)(3)]
   iv. The vapor pressure of the solvent measured in mm Hg at 20° C (68°F). [401 KAR 59:185, Section 4(4)(b)(4)]

b. The permittee shall maintain records of the SDSs or chemical data sheets for the solvent used. [401 KAR 52:020, Section 10]

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

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

The permittee shall operate and maintain the parts cleaning tanks such that they meet the requirements in 401 KAR 59:185 on a continuous basis. Refer to **SECTION E.**

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

Group 8

Emission Unit 08 (EU08) – Emergency Generators > 500 HP – 0EG1

Description: Existing emergency generator >500 HP

Emission Point 01 (EP 08-01) Caster A Melt Shop #1 Emergency Generator

Description:
Model: Cummins DTA50-G2
Maximum Rating: 1341 HP
Construction Commenced: 1997
Primary Fuel: Diesel
Hours of Operation: 60 hours/yr

***Note:** There is no limit on the use of emergency engines in emergency situations.

APPLICABLE REGULATIONS:

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

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

NON-APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(dddd), 40 C.F.R. 60.4200 to 60.4219, Tables 1 to 8 (Subpart IIII), *Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines* (Note: This regulation will become applicable should this emission point be modified or reconstructed in the future as defined under the Federal Regulation)

1. Operating Limitations:

a. The permittee shall use low sulfur diesel fuel (less than 0.4% sulfur) in the emergency generator. [401 KAR 51:017]

Compliance Demonstration Method:
Refer to **5. Specific Recordkeeping Requirements (h).**

b. If an engine operates for the purpose specified in 40 CFR 63.6640(f)(4)(ii), the permittee must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel. [40 CFR 63.6604(b)]

c. The permittee must be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR 63, Subpart ZZZZ that apply at all times. [40 CFR 63.6605(a)]

d. At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further

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

efforts to reduce emissions if levels required by 40 CFR 63, Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

e. The permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

f. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to 40 CFR 63, Subpart ZZZZ apply. [40 CFR 63.6625(h)]

g. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2c to 40 CFR 63, Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to 40 CFR 63, Subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

h. The permittee must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Table 2c to 40 CFR 63, Subpart ZZZZ that applies according to methods specified in Table 6 to 40 CFR 63, Subpart ZZZZ. [40 CFR 63.6640(a)]

i. The permittee must operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (3). In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and must meet all requirements for non-emergency engines. [40 CFR 63.6640(f)]

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

i. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
ii. The permittee may operate the emergency stationary RICE for the purposes specified in 40 CFR 63.6640(f)(2)(i), for a maximum of 60 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) counts as part of the 60 hours per calendar year allowed by 40 CFR 63.6640(f)(2). [40 CFR 63.6640(f)(2); 401 KAR 51:017]
    1) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the 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 RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(2)(i)]
iii. Emergency stationary RICE 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 60 hours per calendar year for maintenance and testing provided in 40 CFR 63.6640(f)(2) and 401 KAR 51:017. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3)]

j. For each emergency stationary CI RICE, the permittee shall meet the following requirements, except during periods of startup: [40 CFR 63, Subpart ZZZZ, Table 2c(1)]
    i. Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63, Subpart ZZZZ, Table 2c(1)(a)]
        1) Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Table 2c of 40 CFR 63, Subpart ZZZZ. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 2]
    ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; [40 CFR 63, Subpart ZZZZ, Table 2c(1)(b)]
    iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63, Subpart ZZZZ, Table 2c(1)(c)]

k. For each emergency stationary CI RICE, during periods of startup, the permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63, Subpart ZZZZ, Table 2c(1)]

l. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c 40 CFR 63, Subpart ZZZZ, or if performing the work practice on the

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

required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 1]

m. Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 3]

2. Emission Limitations:
Refer to **SECTION D**.

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

4. Specific Monitoring Requirements:

a. The permittee shall monitor and collect data according to 40 CFR 63.6635. [40 CFR 63.6635(a)]

b. Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 63.6635(b)]

c. The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The permittee must, however, use all the valid data collected during all other periods. [40 CFR 63.6635(c)]

d. The permittee shall monitor the monthly hours of operation recorded through the non-resettable hour meter and the purpose of operation. [401 KAR 52:020, Section 10]

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

5. Specific Recordkeeping Requirements:

a. The permittee must keep the records described in 40 CFR 63.6655(a)(1) through (a)(5), (b)(1) through (b)(3) and (c). [40 CFR 63.6655(a)]

   i. A copy of each notification and report that is submitted to comply with 40 CFR 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]

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

ii. Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment); [40 CFR 63.6655(a)(2)]
iii. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]

b. The permittee must keep the records required in Table 6 of 40 CFR 63, Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies. [40 CFR 63.6655(d)]

c. The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE according to the permittee's own maintenance plan. [40 CFR 63.6655(e)(2)]

d. The permittee shall keep records of the hours of operation of each engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR 63.6640(f)(4)(ii), the permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f)]

e. The records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a)]

f. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.6660(b)]

g. The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(c)]

h. The permittee shall maintain records of the sulfur content of the fuel used in EU 08 to demonstrate compliance with **1. Operating Limitations (a)**. [401 KAR 52:020, Section 10]

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

6. Specific Reporting Requirements:

a. The permittee must report each instance in which the permittee did not meet each emission limitation or operating limitation in Table 2c to 40 CFR 63, Subpart ZZZZ that applies. These instances are deviations from the emission and operating limitations in 40 CFR 63, Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR 63.6650. [40 CFR 63.6640(b)]

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

b. The permittee must submit each report in Table 7 of 40 CFR 63, Subpart ZZZZ that applies. [40 CFR 63.6650(a)]

c. Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report by the date in Table 7 of 40 CFR 63, Subpart ZZZZ and according to the requirements in 40 CFR 63.6650(b)(1) through (b)(9). [40 CFR 63.6650(b)]

d. The Compliance report must contain the information in 40 CFR 6650(c)(1) through (6). [40 CFR 63.6650(c)]
   i. Company name and address. [40 CFR 63.6650(c)(1)]
   ii. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR 63.6650(c)(2)]
   iii. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.6650(c)(3)]
   iv. If the permittee had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.6605(b), including actions taken to correct a malfunction. [40 CFR 63.6650(c)(4)]
   v. If there are no deviations from any emission or operating limitations that apply, a statement that there were no deviations from the emission or operating limitations during the reporting period. [40 CFR 63.6650(c)(5)]

e. For each deviation from an emission or operating limitation that occurs for a stationary RICE where the permittee is not using a CMS to comply with the emission or operating limitations in 40 CFR 63, Subpart ZZZZ, the Compliance report must contain the information in 40 CFR 63.6650(c)(1) through (4) and the information in 40 CFR 63.6650(d)(1) and (2). [40 CFR 63.6650(d)]
   i. The total operating time of the stationary RICE at which the deviation occurred during the reporting period. [40 CFR 63.6650(d)(1)]
   ii. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [40 CFR 63.6650(d)(2)]

f. The permittee must report all deviations as defined in 40 CFR 63, Subpart ZZZZ in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of 40 CFR 63, Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR 63, Subpart ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect

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

any obligation the affected source may have to report deviations from permit requirements to the Division. [40 CFR 63.6650(f)]

g. If any of the emergency stationary RICE operate for the purposes specified in 40 CFR 63.6640(f)(4)(ii), the permittee shall submit an annual report according to the requirements in 40 CFR 63.6650(h)(1) through (3). [40 CFR 63.6650(h)]

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

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

Group 9

Emission Unit 08 (EU08) – Emergency Generators > 500 HP – 0EG1 &
Emission Unit 09 (EU 09): Emergency Generators < 500 HP

Emission Point #	Unit Name	Maximum Rated Capacity	Fuel Used	Control Device	Construction Commenced
Emission Unit 08 (EU 08) – Emergency Generators > 500 HP – 0EG1					
08-03	PGL Emergency Generator	1676 HP	Diesel	None	2017
08-04	Original Pumphouse (XB11) Emergency Generator	2922 HP	Diesel	None	2017
08-05	New Pumphouse (XB13) Emergency Generator #1	2922 HP	Diesel	None	2021
08-07	Caster B Emergency Generator	2937 HP	Diesel	None	2024
08-08	Air Separation Unit Emergency Generator	700 HP	Diesel	None	2019
Emission Unit 09 (EU 09) – Emergency Generators < 500 HP					
09-06	New Emergency Fire Pump #2	305 HP	Diesel	None	2020
09-07	Radio Tower Emergency Generator	36 HP	Diesel	None	2020
09-08	Scalehouse Emergency Generator	80 HP	Diesel	None	2022
09-09	Truck Staging Emergency Generator	32 HP	Diesel	None	2022

Description: All of these generators have a displacement of less than 30 liters per cylinder.

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality*, applies to EPs 08-05, 08-07, and 08-08.

401 KAR 60:005, Section 2(2)(dddd), **40 C.F.R. 60.4200 to 60.4219, Tables 1 to 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 to 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

1. **Operating Limitations:**
   a. New emergency stationary reciprocating internal combustion engines (RICE) with a site rating of more than 500 brake HP located at a major source of HAP emissions do not have to meet the requirements of 40 CFR 63, Subpart ZZZZ and Subpart A except for the initial notification requirements of 40 CFR 63.6645(f). [40 CFR 63.6590(b)(1)(i)]

   b. EPs 09-06, 09-07, 09-08, and 09-09 shall meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR Part 60, Subpart IIII, for compression ignition engines. No further requirements apply for such engines under 40 CFR Part 63. [40 CFR 63.6590(c)(6)]

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

c. The permittee shall operate and maintain the stationary CI ICE such that the emission standards required in 40 CFR 60.4205 are achieved over the entire life of the engine. [40 CFR 60.4206]

d. The permittee shall use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel. [40 CFR 60.4207(b)]

e. The permittee shall do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]
   i. Operate and maintain the emergency stationary CI internal combustion engine 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 in 40 CFR 60.4211(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60, Subpart IIII and must 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 listed above for any combination of the purposes specified in 40 CFR 60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed 40 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [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 per year for nonemergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or

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

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 nonemergency situations can be used to supply power as part of a financial arrangement with another entity if all the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. [40 CFR 60.4211(f)(3)(i)]

g. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows:. [40 CFR 60.4211(g)]

i. For EP 09-07: 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 EP 09-06: 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 with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [40 CFR 60.4211(g)(2)]

iii. For all EPs except EPs 09-06, 09-07, 09-08, and 09-09: 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 with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. The permittee must 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)]

h. The permittee shall prepare and maintain for EPs 08-05, 08-07, and 08-08, upon initial compliance demonstration but no later than 90 days after 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 PM, PM_{10}, $PM_{2.5}$, Lead (Pb),

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

NO_x, CO, SO_2, VOC, and GHG emissions. Any revisions to the GCOP plan requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]

i. A list of combustion optimization practices and a means of verifying the practices have occurred.
ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred.
iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.

Compliance Demonstration Method:
Refer to **5. Specific Recordkeeping Requirements** and **6. Specific Reporting Requirements**.

2. Emission Limitations:

a. For all EPs except 09-06, 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 for their 2007 model year and later emergency stationary CI ICE (with a displacement of less than 30 liters per cylinder). [40 CFR 60.4205(b)]

b. For EP 09-06, the permittee shall comply with the emission standards in Table 4 to 40 CFR 60, Subpart IIII, for all pollutants. [40 CFR 60.4205(c)]

Maximum Engine Power	Emission Standards g/KW-hr (g/HP-hr)	
	NMHC + NO_x	PM
(300≤HP<600)	4.0 (3.0)	0.20 (0.15)

Compliance Demonstration Method:
The permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b) or 40 CFR 60.4205(c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) 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)]

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

Emission Point (EP)	PM (g/hp-hr)	PM_{10} (g/hp-hr)	$PM_{2.5}$ (g/hp-hr)	CO (g/hp-hr)	NMHC+NO_x (g/hp-hr)
EP 08-05	0.15	0.15	0.15	2.6	4.8
EP 08-07	0.15	0.15	0.15	2.6	4.8
EP 08-08	0.15	0.15	0.15	2.6	4.8

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

Compliance Demonstration Method:
The permittee shall install, operate, and maintain each engine such that it meets or is certified to meet the emission limits in **2. Emission Limitations (d)**.

d. Refer to **SECTION D**.

3. Testing Requirements:

a. If the permittee conducts performance tests pursuant to 40 CFR 60, Subpart IIII, they shall do so according to 40 CFR 60.4212(a) through (e) for CI engines with a displacement of less than 30 liters per cylinder. [40 CFR 60.4212]

b. 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 install a non-resettable hour meter on each unit prior to the start-up of the engine. [40 CFR 60.4209(a)]

b. The permittee shall monitor the monthly hours of operation recorded through the non-resettable hour meter and the purpose of operation for each emission point. [401 KAR 52:020, Section 10]

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

5. Specific Recordkeeping Requirements:

a. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the permittee is not required to submit an initial notification. Starting with the model years in table 5 to 40 CFR 60, Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

b. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly and annual fuel usage for each engine;
   ii. The manufacturer's certified emissions certificate, manufacturer's written operating instructions, and any procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine;
   iii. The monthly and annual hours of operation recorded through the non-resettable hour meter and the purpose of operation for each emission point;
   iv. The GCOP plan required by **1. Operating Limitations (h)**, as well as any revisions.

c. The permittee shall maintain records of maintenance conducted on the engine consistent with the operating requirements of 40 CFR 60.4206 and 40 CFR 60.4211(a). [401 KAR 52:020, Section 10]

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

d. The permittee shall maintain records of fuel purchases to show that the fuel meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel. [401 KAR 52:020, Section 10]

e. The permittee shall maintain records of any time that an emission point listed above was not operated according to the GCOP plan required by **1. Operating Limitations (h)** with a description of the situation and actions taken to remedy the issue. [401 KAR 51:017]

f. The permittee shall keep a copy of each notification submitted to comply with 40 CFR 63, Subpart ZZZZ, including all documentation supporting any Initial Notification submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]

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

6. Specific Reporting Requirements:

a. For any engine that operates for the purposes specified in 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 UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Group 10

Emission Unit 09 (EU09) – Emergency Generators < 500 HP

Description: Existing emergency fire pumps <500 HP

Emission Point 01 (EP 09-01) Emergency Fire Pump #1

Description:
Model: Clarke Detroit
Maximum Rating: 300 HP
Construction Commenced: 1995
Primary Fuel: Diesel

Emission Point 03 (EP 09-03) Make-up Water Pump #1

Description:
Model: John Deere
Maximum Rating: 166 HP
Construction Commenced: 1997
Primary Fuel: Diesel

APPLICABLE REGULATIONS:

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

NON-APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(dddd), 40 C.F.R. 60.4200 to 60.4219, Tables 1 to 8 (Subpart IIII), *Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines* (Note: This regulation will become applicable should this emission point be modified or reconstructed in the future as defined under the Federal Regulation)

1. **Operating Limitations:**
   a. The permittee shall comply with the emission limitations and other requirements in Table 2c to 40 CFR 63, Subpart ZZZZ which apply. [40 CFR 63.6602]

   b. For each emergency stationary CI RICE, that uses diesel fuel and operates for the purposes specified in 40 CFR 63.6640(f)(4)(ii), the permittee must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel. [40 CFR 63.6604(b)]

   c. The permittee must be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR 63, Subpart ZZZZ that apply at all times. [40 CFR 63.6605(a)]

   d. At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

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

The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

e. The permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)(2)]

f. The permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

g. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2c to 40 CFR 63, Subpart ZZZZ apply. [40 CFR 63.6625(h)]

h. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2c to 40 CFR 63, Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to 40 CFR 63, Subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

i. The permittee must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Table 2c to 40 CFR 63, Subpart ZZZZ that applies according to methods specified in Table 6 to 40 CFR 63, Subpart ZZZZ. [40 CFR 63.6640(a)]

j. The permittee must operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (3). In order for the engine to be considered an emergency

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

stationary RICE under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and must meet all requirements for non-emergency engines. [40 CFR 63.6640(f)]

i. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
ii. The permittee may operate the emergency stationary RICE for the purposes specified in 40 CFR 63.6640(f)(2)(i), for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 63.6640(f)(2). [40 CFR 63.6640(f)(2)]
    1) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the 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 RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(2)(i)]
iii. Emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3)]

k. For each emergency stationary CI RICE, the permittee shall meet the following requirements, except during periods of startup: [40 CFR 63, Subpart ZZZZ, Table 2c(1)]
    i. Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63, Subpart ZZZZ, Table 2c(1)(a)]
        1) Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Table 2c of 40 CFR 63, Subpart ZZZZ. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 2]
    ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; [40 CFR 63, Subpart ZZZZ, Table 2c(1)(b)]
    iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63, Subpart ZZZZ, Table 2c(1)(c)]

l. For each emergency stationary CI RICE, during periods of startup, the permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes,

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

after which time the non-startup emission limitations apply. [40 CFR 63, Subpart ZZZZ, Table 2c(1)]

m. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c 40 CFR 63, Subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 1]

n. Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 3]

2. Emission Limitations:
Refer to **SECTION D**.

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

4. Specific Monitoring Requirements:

a. The permittee shall monitor and collect data according to 40 CFR 63.6635. [40 CFR 63.6635(a)]

b. Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 63.6635(b)]

c. The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The permittee must, however, use all the valid data collected during all other periods. [40 CFR 63.6635(c)]

d. For each emissions point, the permittee shall monitor the monthly hours of operation recorded through the non-resettable hour meter and the purpose of operation. [401 KAR 52:020, Section 10]

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

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

5. Specific Recordkeeping Requirements:

a. The permittee must keep the records described in 40 CFR 63.6655(a)(1) through (a)(5), (b)(1) through (b)(3) and (c). [40 CFR 63.6655(a)]

i. A copy of each notification and report that is submitted to comply with 40 CFR 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]

ii. Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment); [40 CFR 63.6655(a)(2)]

iii. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]

b. The permittee must keep the records required in Table 6 of 40 CFR 63, Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies. [40 CFR 63.6655(d)]

c. The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE according to the permittee's own maintenance plan. [40 CFR 63.6655(e)(2)]

d. The permittee shall keep records of the hours of operation of each engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR 63.6640(f)(2)(ii), the permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f)]

e. The records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a)]

f. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.6660(b)]

g. The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(c)]

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

6. Specific Reporting Requirements:

a. The permittee must report each instance in which the permittee did not meet each emission limitation or operating limitation in Table 2c to 40 CFR 63, Subpart ZZZZ that applies.

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These instances are deviations from the emission and operating limitations in 40 CFR 63, Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR 63.6650. [40 CFR 63.6640(b)]

b. The permittee must also report each instance in which the permittee did not meet the requirements in Table 8 to 40 CFR 63, Subpart ZZZZ that apply. [40 CFR 63.6640(e)]

c. The permittee must submit each report in Table 7 of 40 CFR 63, Subpart ZZZZ that applies. [40 CFR 63.6650(a)]

d. Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report by the date in Table 7 of 40 CFR 63, Subpart ZZZZ and according to the requirements in 40 CFR 63.6650(b)(1) through (b)(9). [40 CFR 63.6650(b)]

e. The Compliance report must contain the information in 40 CFR 6650(c)(1) through (6). [40 CFR 63.6650(c)]
   i. Company name and address. [40 CFR 63.6650(c)(1)]
   ii. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR 63.6650(c)(2)]
   iii. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.6650(c)(3)]
   iv. If the permittee had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.6605(b), including actions taken to correct a malfunction. [40 CFR 63.6650(c)(4)]
   v. If there are no deviations from any emission or operating limitations that apply, a statement that there were no deviations from the emission or operating limitations during the reporting period. [40 CFR 63.6650(c)(5)]

f. For each deviation from an emission or operating limitation that occurs for a stationary RICE where the permittee is not using a CMS to comply with the emission or operating limitations in 40 CFR 63, Subpart ZZZZ, the Compliance report must contain the information in 40 CFR 63.6650(c)(1) through (4) and the information in 40 CFR 63.6650(d)(1) and (2). [40 CFR 63.6650(d)]
   i. The total operating time of the stationary RICE at which the deviation occurred during the reporting period. [40 CFR 63.6650(d)(1)]
   ii. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [40 CFR 63.6650(d)(2)]

g. The permittee must report all deviations as defined in 40 CFR 63, Subpart ZZZZ in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7

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

of 40 CFR 63, Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR 63, Subpart ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the Division. [40 CFR 63.6650(f)]

h. If any of the emergency stationary RICE operate for the purposes specified in 40 CFR 63.6640(f)(2)(ii), the permittee shall submit an annual report according to the requirements in 40 CFR 63.6650(h)(1) through (3). [40 CFR 63.6650(h)]

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

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

Group 11

Emission Unit 06 (EU 06) – LMF Alloy Handling & Storage – 0P1
Emission Unit 10 (EU 10) – Miscellaneous Dust Sources– 0B1 and 0S1 &
Emission Unit 11 (EU 11) – Flux (Lime) Handling System

Emission Point #	Unit Name	Maximum Short-Term Capacity	Maximum Long-Term Capacity	Control Device	Construction Commenced
Emission Unit 06 (EU 06) – LMF Alloy Handling & Storage – 0P1					
06-04	Melt Shop #2 Lime & Alloy System	20 tons/hr	140,000 tons/yr**	Baghouse	2021
Emission Unit 10 (EU 10) – Miscellaneous Dust Sources– 0B1 and 0S1					
10-01	Rail & Truck Unloading Station (for Melt Shop #1, formerly 0B1)	20 tons/hr	70,000 tons/yr*	Dust Collector	1993
Emission Unit 11 (EU 11) – Flux (Lime) Handling System					
11-02	Lime Silo #1 (formerly EP 10-02)	20 tons/hr	17,500 ton/yr***	Bin Vent Filter	1993
11-03	Lime Silos #2 & #3 (formerly EP 10-03)	20 tons/hr	35,000 ton/yr***	Bin Vent Filter	1993
11-04	Lime Silo #4 (formerly EP 10-04)	20 tons/hr	17,500 ton/yr***	Bin Vent Filter	1993
11-11	Flux Handling System (incl. two screw augers & a vertical belt conveyor for Melt Shop #1, formerly EU 11)	20 tons/hr	70,000 tons/yr**	Pulse-jet Dust Collector	1997

*Note: Long-term capacities of these units are bottlenecked by the upstream operational limit on the melt shops.
**Note: Long-term capacity is limited by an operational limitation, below.
***Note: Long-term capacities of these units are bottlenecked by the capacity of the lime dump station conveyor.

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality*
401 KAR 59:010, *New process operations*
401 KAR 63:010, *Fugitive emissions*

1. **Operating Limitations:**
   a. The permittee shall not process more than 70,000 tons of lime per year through EP 11-11, on a rolling 12-month basis. [401 KAR 51:017]

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

   b. The permittee shall not process more than 140,000 tons of lime and alloy per year through EP 06-04, on a rolling 12-month basis. [401 KAR 51:017]

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

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

c. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored without taking reasonable precaution to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
   i. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling; [401 KAR 63:010, Section 3(1)(c)]

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

b. ***Particulate Emission Standard:*** The permittee shall not discharge or cause to be discharged into the atmosphere any gases which exceed the following limits:
   i. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2), Appendix A]
      1) For process weight rates ≤ 0.50 ton/hr: 2.34 lb/hr
      2) For process weight rates > 0.50 ton/hr up to 30.00 tons/hr: $E = 3.59 * P^{0.62}$
      3) For process weight rates > 30.00 tons/hr: $E = 17.3 * P^{0.16}$
      Where:
      E = the allowable PM emissions rate (pounds/hr)
      P = the process weight rate (tons/hr)
   ii. Emissions of PM, PM_{10}, and $PM_{2.5}$ shall not exceed the limits in the following table: [401 KAR 51:017]

Control Device (Stack)	Emission Point	Description	BACT for PM (filterable)	BACT for PM_{10}	BACT for $PM_{2.5}$
Melt Shop #2 Lime & Alloy Baghouse	06-04	Two dump stations and an enclosed conveyor system to transfer lime and alloys to elevated storage bins located inside the Melt Shop #2	0.005 gr/dscf; 3.56 lb/hr; 15.57 ton/yr	0.005 gr/dscf; 3.56 lb/hr; 15.57 ton/yr	0.005 gr/dscf; 3.56 lb/hr; 15.57 ton/yr

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

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the emission standards listed above as follows:

A. For EP 06-04, compliance with **2. Emission Limitations (b)(i)** is assumed when complying with **2. Emission Limitations (b)(ii)**.
B. For EP 06-04, compliance with **2. Emission Limitations (b)(ii)** will be demonstrated by meeting the requirements in **1. Operating Conditions (b)**, **4. Specific Monitoring Requirements (b), 5. Specific Recordkeeping Requirements (b)** and **(c),** and **7. Specific Control Equipment Operating Conditions (e)** and **(g).**
C. For EPs 10-01, 11-02 through 11-04, and 11-11, compliance with **2. Emission Limitations (b)(i)** is assumed when the bin vent filters and dust collectors are installed, operated, and maintained according to the manufacturer's specifications. Refer to **7. Specific Control Equipment Operating Conditions.**

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

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

d. Refer to **SECTION D**.

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

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

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

b. The permittee shall perform monthly operational status inspections of the affected facilities and control equipment. The observations shall include but not be limited to, the physical appearance of all equipment. [401 KAR 52:020, Section 10]

c. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. Daily and 12-month rolling throughput for each emission point;
   ii. Hours of operation.

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the dates and times of each qualitative visible emission observation and U.S. EPA Reference Method 9 observation performed as required by **4. Specific Monitoring Requirements (a)**, whether any emissions were observed (yes/no), initials of observer, as well as any corrective action taken due to observed emissions. [401 KAR 52:020, Section 10]

b. The permittee shall keep records documenting all deficiencies noted during the monthly operational status inspections and the resulting maintenance that was performed. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of manufacturer's specifications identifying the grain loading and flow rate for which each control device was designed. [401 KAR 52:020, Section 10]

d. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. Monthly and 12-month rolling throughput for each emission point;
   ii. Hours of operation.
   iii. Monthly and 12-month rolling emissions of PM, PM_{10}, and $PM_{2.5}$.

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

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

6. Specific Reporting Requirements:

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

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

7. Specific Control Equipment Operating Conditions:

a. Rail and Truck Unloading Station (EP 10-01) - operate and maintain a dust collector designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 5000 dscf/min. [401 KAR 51:017]

b. The permittee shall operate and maintain dust collectors and bin vent filters in accordance with manufacturer's specifications and/or standard operation practices and shall perform proper maintenance of any deficiencies noted during monthly operational status inspections.

c. Lime Silo #1 EP 11-02 (formerly EP 10-02) - operate and maintain a bin vent filter designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 900 dscf/min. [401 KAR 51:017]

d. Lime Silo #2, #3, and #4 EP 11-03 and EP 11-04 (formerly EP 10-03 and 10-04) - operate and maintain a bin vent filter designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 900 dscf/min. [401 KAR 51:017]

e. Melt Shop #2 Lime and Alloy System (EP 06-04) - operate and maintain a dust collector designed to control particulate grain loading to 0.005 grain/dscf and the flow rate to 82,961 dscf/min. [401 KAR 51:017]

f. Flux Handling System (EP 11-11) - operate and maintain a pulse-jet dust collector designed to control particulate grain loading to 0.005 gr/dscf average and the flow rate to 7,500 dscf/min. [401 KAR 51:017]

g. The permittee shall operate and maintain dust collectors and bin vent filters in accordance with manufacturer's specifications and/or standard operation practices and shall perform maintenance of any deficiencies noted during monthly operational status inspections. [401 KAR 50:055]

Compliance Demonstration Method:
The permittee is assumed to be in compliance, as long as the records in **5. Specific Recordkeeping Requirements** (d) are kept and made readily available, and the requirements in **4. Specific Monitoring Requirements** and **7. Specific Control Equipment Operating Conditions** are met.

h. Refer to **SECTION E.**

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

Group 12

Emission Unit 12 (EU 12) – Carbon Handling System (formerly Recycling & Coal Drying) – 0RC

Description:
The carbon handling system includes three storage silos equipped with bin vents

Emission Point #	Unit Name	Maximum Short-Term Capacity	Maximum Long-Term Capacity	Control Device	Construction Commenced
Emission Unit 12 (EU 12) – Carbon Handling System (formerly Recycling & Coal Drying) – 0RC					
12-51	Carbon Silo #1 (formerly EP 10-07A)	25 tons/hr	17,500 tons/yr*	Bin Vent Filter	1993
12-52	Carbon Silo #2 (formerly EP 10-07C)	25 tons/hr	17,500 tons/yr*	Bin Vent Filter	1993
12-53	Carbon Silo #3	25 tons/hr	35,000 tons/yr*	Bin Vent Filter	2020

*Note: Long-term capacity of this unit is bottlenecked by the material needed to meet the downstream operational limit on the melt shops.

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality*
401 KAR 59:010, *New process operations*
401 KAR 63:010, *Fugitive emissions*

1. **Operating Limitations:**
   a. For each affected facility that is not subject to the opacity standards in **2. Emission Limitations (a)**, and that emits or may emit any air contaminant into the air outside buildings, structures, and equipment other than from a stack or air pollution control equipment exhaust:
      i. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished, or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
         1) 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)]
         2) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations; [401 KAR 63:010, Section 3(1)(c)]
         3) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
         4) The maintenance of paved roadways in a clean condition; [401 KAR 63:010, Section 3(1)(e)]

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

5) The prompt removal of earth or other material from a paved street 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)]

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

b. ***Particulate Emission Standard:*** The permittee shall not discharge or cause to be discharged into the atmosphere any gases which exceed the following limits:

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

1) For process weight rates ≤ 0.50: 2.34 lb/hr
2) For process weight rates > 0.50 ton/hr up to 30.00 tons/hr: $E = 3.59 * P^{0.62}$
3) For process weight rates > 30.00 tons/hr: $E = 17.3 * P^{0.16}$

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

ii. Emissions of PM, PM_{10}, and $PM_{2.5}$ shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for PM (filterable)	BACT for PM_{10}	BACT for $PM_{2.5}$
12-53	Carbon Silo #3	0.005 gr/dscf; 0.0643 lb/hr; 0.045 ton/yr	0.005 gr/dscf; 0.0643 lb/hr; 0.045 ton/yr	0.005 gr/dscf; 0.0643 lb/hr; 0.045 ton/yr

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the emission standards listed above as follows:

A. For EP 12-53, compliance with **2. Emission Limitations (b)(i)** is assumed when complying with **2. Emission Limitations (b)(ii)**.

B. For EP 12-53, compliance with **2. Emission Limitations (b)(ii)** will be demonstrated by meeting the requirements in **4. Specific Monitoring Requirements (c), 5. Specific Recordkeeping Requirements (b)** and **(c),** and **7. Specific Control Equipment Operating Conditions.**

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

C. Except for EP 12-53, the permittee shall determine compliance with the mass emission standard in **2. Emission Limitations (b)(i)** by comparing the allowable rate to the actual rate using the following equation:

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

Where:
i is the month,
E_{PMi} is the actual average hourly particulate emissions rate for month i (pounds/hour);
P_i is the actual specific operating parameter for month i (units/month),
EF_{PM} is the overall uncontrolled KYEIS particulate emission factor (pounds/unit), h_i is the actual total hours of operation for month *i* (hours/month), and
CE is the overall control efficiency (%).

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

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

d. Refer to **SECTION D**.

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

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

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

b. The permittee shall perform monthly operational status inspections of the affected facilities and dust suppression equipment. The observations shall include but not be limited to, the physical appearance of all equipment. [401 KAR 52:020, Section 10]

c. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. Daily and 12-month rolling throughput for each emission point;
   ii. Hours of operation.

d. 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]

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the dates and times of each qualitative visible emission observation and U.S. EPA Reference Method 9 observation performed as required by **4. Specific Monitoring Requirements (a)**, whether any emissions were observed (yes/no), initials of observer, as well as any corrective action taken due to observed emissions. [401 KAR 52:020, Section 10]

b. The permittee shall maintain records of manufacturer's specifications identifying the grain loading and flow rate for which the control device was designed. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. Daily and 12-month rolling throughput for each emission point;
   ii. Hours of operation.
   iii. For EP 12-53: The monthly and 12-month rolling emissions of PM, PM_{10}, and $PM_{2.5}$.

d. The permittee shall maintain records documenting maintenance that was performed on dust suppression equipment. [401 KAR 52:020, Section 10]

e. 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]

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

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

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. Carbon Silo #1, EP 12-51 (formerly EP 10-07A) - Install, operate and maintain a bin vent filter designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 1500 dscf/min. [401 KAR 51:017]

b. Carbon Silo #2, EP 12-52 (formerly EP 10-07C) - Install, operate and maintain a bin vent filter designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 650 dscf/min. [401 KAR 51:017]

c. Carbon Silo #3, EP 12-53 - Install, operate and maintain a bin vent filter designed to control particulate grain loading to 0.005 grain/dscf and the flow rate to 1500 dscf/min. [401 KAR 51:017]

d. The permittee shall operate and maintain dust suppression equipment in accordance with manufacturer's specifications and/or standard operation practices. All deficiencies shall be noted and proper maintenance performed. [401 KAR 52:020, Section 10]

e. Refer to **SECTION E.**

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

Group 13

Emission Unit 02 (EU 02) – Hot Rolling Mill
Emission Unit 13 (EU 13) – Direct Reduced Iron (DRI) Handling System &
Emission Unit 19 (EU 19) – Slag Processing

Emission Point #	Unit Name	Maximum Short-Term Capacity	Maximum Long-Term Capacity	Control Device	Construction Commenced
Emission Unit 02 (EU 02) – Hot Rolling Mill					
02-08	Material Handling Coil Torch Cutting	60 tons/hr	420,000 tons/yr	Coil cutting baghouse	2020
Emission Unit 13 (EU 13) – Direct Reduced Iron (DRI) Handling System					
13-01	Unloading Dock	500 tons/hr	1,322,760 tons/yr*	Dust Collection System (Installed 4/2017)	2015
13-02	DRI Storage Silo #1	500 tons/hr	1,322,760 tons/yr*	Passive Bin Vent Filter (Installed 2018)	2015
13-03	DRI Storage Silo #2	500 tons/hr	1,322,760 tons/yr*	Passive Bin Vent Filter (Installed 2018)	2015
13-04	DRI Storage Silo #3	500 tons/hr	1,322,760 tons/yr*	Bin Vent Filter	2015
13-05	DRI Storage Silo Loadout	500 tons/hr	1,322,760 tons/yr*	Drop into a 4-sided container	2015
13-06	DRI Day Bin #1	500 tons/hr	1,322,760 tons/yr*	Bin Vent Filter (shared with EP 13-07)	2015
13-07	DRI Day Bin #2	500 tons/hr	1,322,760 tons/yr*	Bin Vent Filter (shared with EP 13-06)	2015
13-08	DRI Transfer Conveyor #4 & #7	500 tons/hr	1,322,760 tons/yr*	Bin Vent Filters (2)	2015
13-09	DRI Transfer Conveyor #5 & #8	500 tons/hr	1,322,760 tons/yr*	Bin Vent Filters (2)	2015
13-10	DRI Rail Loading	500 tons/hr	661,380 tons/yr*	Drop into a 4-sided container	2015
13-11	DRI Handling System for Melt Shop #2	500 tons/hr	1,322,760 tons/yr*	1 powered bin vent at conveyor transfer point	2020
13-12	DRI Conveyor #1a	500 tons/hr	1,322,760 tons/yr	Bin Vent Filter	2015; Modified 2024
13-13	DRI Conveyor #6	500 tons/hr	1,322,760 tons/yr	Bin Vent Filter	2015; Modified 2024
Emission Unit 19 (EU 19) – Slag Processing					

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

Emission Point #	Unit Name	Maximum Short-Term Capacity	Maximum Long-Term Capacity	Control Device	Construction Commenced
19-02	Slag Processing Storage Piles	59.93 tons/hr	525,000 tons/yr*	Wet Suppression	2016 Modified 2022
19-03	Slag Processing Equipment	400 tons/hr	575,000 tons/yr*	Wet Suppression	2016 Modified 2022
19-04	Scrap Cutting	60 tons/hr	420,000 tons/yr	Mobile Baghouse	2016 Modified 2022

*Note: Long-term capacity is limited by an operational limitation, below.

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality,* applies to EP 13-11, 19-02, and 19-03
401 KAR 59:010, *New process operations*
401 KAR 63:010, *Fugitive emissions*

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

PRECLUDED REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality,* for, EP 13-01 through 13-10, and 19-04.

1. Operating Limitations:

a. The permittee shall not process more than 1,322,760 tons of DRI per year through EPs 13-01 through 13-09 and 661,380 tons of DRI per year through EP 13-10. [To preclude 401 KAR 51:017]

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

b. The slag processing storage piles (EP 19-02) total weight shall not exceed 525,000 tons at any time. [401 KAR 51:017]

Compliance Demonstration Method:
The permittee shall demonstrate compliance with **1. Operating Limitations (b)**, monthly, by determining the total weight of the slag processing storage piles using the following equation:

$$Weight_{stockpiles} = Volume_{total} \times \rho_{water} \times SG_{slag}$$

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

Where:

$Weight_{stockpiles}$ = total weight of slag processing storage piles

$Volume_{total}$ = total volume of slag processing storage piles

ρ_{water} = density of water (1,000 $\frac{kg}{m^3}$, 62.4 $\frac{lb}{ft^3}$, or equivalent)

SG_{slag} = specific gravity of slag (from SDS)

c. The permittee shall not process more than 525,000 tons per year through EP 19-02 and 575,000 tons per year through EP 19-03, on an individual basis. [401 KAR 51:017]

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

d. For each affected facility that is not subject to the opacity standards in **2. Emission Limitations (a)**, and that emits or may emit any air contaminant into the air outside buildings, structures, and equipment other than from a stack or air pollution control equipment exhaust:
   i. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished, or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      1) 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)]
      2) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations; [401 KAR 63:010, Section 3(1)(c)]
      3) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
      4) The maintenance of paved roadways in a clean condition; [401 KAR 63:010, Section 3(1)(e)]
      5) The prompt removal of earth or other material from a paved street 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)]

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

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

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

facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

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

b. ***Particulate Emission Standard:*** The permittee shall not discharge or cause to be discharged into the atmosphere any gases which exceed the following limits:
   i. For emissions from a control device or stack, the permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A: [401 KAR 59:010, Section 3(2), Appendix A]
      1) For process weight rates ≤ 0.50 ton/hr: 2.34 lb/hr
      2) For process weight rates > 0.50 ton/hr up to 30.00 tons/hr: $E = 3.59 * P^{0.62}$
      3) For process weight rates > 30.00 tons/hr: $E = 17.3 * P^{0.16}$

      Where:
      E = the allowable PM emissions rate (pounds/hr)
      P = the process weight rate (tons/hr)
   ii. Emissions of PM, PM_{10}, and $PM_{2.5}$ shall not exceed the limits in the following tables: [401 KAR 51:017]

Emission Point	Description	BACT for PM (filterable)	BACT for PM_{10}	BACT for $PM_{2.5}$
13-11	DRI Handling System for Melt Shop #2	0.001 gr/dscf; 0.02 lb/hr; 0.09 ton/yr	0.001 gr/dscf; 0.02 lb/hr; 0.09 ton/yr	0.001 gr/dscf; 0.01 lb/hr; 0.04 ton/yr
19-02	Slag Processing Storage Piles	2.07 ton/yr	0.98 ton/yr	0.17 ton/yr
19-03	Slag Processing Equipment	0.9 lb/hr 3.94 ton/yr	0.38 lb/hr; 1.66 ton/yr	0.22 lb/hr; 0.96 ton/yr

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the emission standards listed above as follows:

A. For EP 02-08, compliance with **2. Emission Limitations (b)(i)** is assumed when the baghouse is operating and properly maintained in accordance with manufacturer's specifications. Refer to **7. Specific Control Equipment Operating Conditions**.
B. For EP 13-11, compliance with **2. Emission Limitations (b)(i)** is assumed when complying with **2. Emission Limitations (b)(ii)**.
C. For EPs 13-11, 19-02, and 19-03, compliance with **2. Emission Limitations (b)(ii)** will be demonstrated by meeting the requirements in **1. Operating Limitations**, **4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements,** and **7. Specific Control Equipment Operating Conditions**.

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

D. For all EPs except 13-11, 19-02, and 19-03, the permittee shall demonstrate compliance with **2. Emission Limitations (b)(i)** by comparing the allowable rate to the actual rate using the following equation:

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

Where:
i is the month,
E_{PMi} is the actual average hourly particulate emissions rate for month i (pounds/hour) is the actual average hourly rate for month i (pounds/hour);
P_i is the actual specific operating parameter for month i (units/month),
EF_{PM} is the overall uncontrolled KYEIS particulate emission factor (pounds/unit), h_i is the actual total hours of operation for month *i* (hours/month), and
CE is the overall control efficiency (%).

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

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

d. The permittee shall not allow the emission units listed above 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. [401 KAR 63:020, Section 3]

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

e. Refer to **SECTION D**.

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

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

4. Specific Monitoring Requirements:

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

b. The permittee shall perform monthly operational status inspections of the affected facilities and control equipment. The observations shall include but not be limited to, the physical appearance of all equipment. [401 KAR 52:020, Section 10]

c. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. For EPs 13-02 through 13-04, 13-06, 13-07, 13-09, 13-12, 13-13 and 19-03, the monthly hours of operation for each emission point;
   ii. Monthly and 12-month rolling process weight rate (tons) for each emission point;

d. 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]

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. For EPs 13-02 through 13-04, 13-06, 13-07, 13-09, 13-12, 13-13, and 19-03, the monthly hours of operation for each emission point;
   ii. Monthly and 12-month rolling process weight rate (tons) for each emission point;
   iii. For EP 02-08, the monthly and 12-month rolling oxygen usage;
   iv. For EPs 13-11, 19-02, and 19-03, the monthly and 12-month rolling emissions of PM, PM_{10}, and $PM_{2.5}$;
   v. The qualitative visual observations required by **4. Specific Monitoring Requirements (a),** 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.
   vi. Maintenance performed on the control equipment;
   vii. Manufacturer's specifications identifying the grain loading and flow rate for which the control device was designed;

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

b. 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]

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

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

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

a. The permittee shall install an interlock system on the conveyor system (EU 13) such that the conveyors cannot operate without a signal confirming the functioning of the bin vent fans. [To preclude 401 KAR 51:017]

b. The permittee shall operate and maintain dust suppression equipment in accordance with manufacturer's specifications and/or standard operation practices. All deficiencies shall be noted and proper maintenance performed. [401 KAR 52:020, Section 10]

c. For EP 19-04, the permittee shall operate and maintain dust control devices at all times during operation. [To preclude 401 KAR 51:017]

d. For EPs 13-02, 13-03, and 13-04, the permittee shall install, operate, and maintain a dust collector designed to control particulate grain loading to 0.001 grain/dscf and the flow rate to 1,200 dscf/min. [To preclude 401 KAR 51:017]

e. For EPs 13-06 and 13-07, the permittee shall install, operate, and maintain a dust collector designed to control particulate grain loading to 0.001 grain/dscf and the flow rate to 1,200 dscf/min. [To preclude 401 KAR 51:017]

f. For EP 13-08 and 13-09, the permittee shall install, operate, and maintain a dust collectors on the DRI Conveyor #4 and #7 transfer points and DRI Conveyor #5 and #8 transfer points, respectively, designed to control particulate grain loading to 0.001 grain/dscf and the flow rate to 1,200 dscf/min. [To preclude 401 KAR 51:017]

g. For EPs 02-08 and 19-04, the permittee shall operate, and maintain the baghouse in accordance with manufacturer's specifications and/or standard operation practices. The permittee shall use the baghouse to collect and control emissions from lancing and torching operations at all times. [To preclude 401 KAR 51:017]

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

h. For EP 13-11, the permittee shall operate, and maintain a dust collectors on the DRI pocket belt conveyor transfer points designed to control particulate grain loading to 0.001 grain/dscf and flow rate to 1,200 dscf/min. [401 KAR 51:017]

i. For EP 19-02, to reduce and minimize particulate matter (PM, PM_{10}, and $PM_{2.5}$) emissions, the permittee shall utilize wet suppression (BACT for PM, PM_{10}, and $PM_{2.5}$) and implement good work practice for minimizing particulate matter and demonstrating compliance with BACT for particulate matter. [401 KAR 51:017]

j. For EP 19-03, to reduce and minimize particulate matter (PM, PM_{10}, and $PM_{2.5}$) emissions, the permittee shall utilize wet suppression, and reduce the drop height (BACT for PM, PM_{10}, and $PM_{2.5}$) and implement good work practice for minimizing particulate matter and demonstrating compliance with BACT for particulate matter. [401 KAR 51:017]

k. Refer to **SECTION E.**

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

Group 14

Emission Unit 15 (EU 15) – Pickle Galv Line (PGL)

Emission Point #	Unit Name	Maximum Short-Term Capacity	Maximum Long-Term Capacity	Control Device	Construction Commenced
Emission Unit 15 (EU 15) – Pickle Galv Line (PGL)					
15-01	PGL Scale Breaker	300 tons/hr	2,628,000 tons/yr	Baghouse	2017
15-02	PGL HCl Pickling Line	300 tons/hr	2,628,000 tons/yr	Wet Scrubber #1	2017
15-05	PGL Pickling Building Roof Monitor	300 tons/hr	2,628,000 tons/yr	None	2017
15-06	PGL Storage Tanks	300 tons/hr	2,628,000 tons/yr	ATF Wet Scrubber	2018

APPLICABLE REGULATIONS:

401 KAR 59:010, *New process operations*

401 KAR 63:002, Section 2(4)(pp), **40 C.F.R. 63.1155 to 63.1166, Tables 1 (Subpart CCC)**, *National Emission Standards for Hazardous Air Pollutants for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants*

40 CFR 64, *Compliance Assurance Monitoring*, applies to EPs 15-01 and 15-02 for PM.

1. Operating Limitations:

a. The permittee shall not operate the PGL HCl Pickling Line (EP 15-02) unless the emissions are exhausted to a wet scrubbing system. The collection and scrubbing system for EP 15-02 shall be properly maintained and operated, treating hydrochloric acid emissions from each pickle line. [401 KAR 52:020, Section 10]

b. For EP 15-06, the permittee shall provide and operate, except during loading and unloading of acid, a closed-vent system for each vessel. Loading and unloading shall be conducted either through enclosed lines or each point where the acid is exposed to the atmosphere shall be equipped with a local fume capture system, ventilated through an air pollution control device. [40 CFR 63.1159(b)]

c. At all times, the permittee shall operate and maintain EPs 15-02, 15-05, and 15-06, including associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1159(c)]

d. For EP 15-02, the permittee shall operate the wet scrubber with a maximum conductivity excursion limit as established in the most recent performance test in which compliance was demonstrated. Operation of the wet scrubber with conductivity greater than this value will

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

require initiation of corrective action as specified by the maintenance requirements in 40 CFR 63.1160(b)(2). [EPA approval pursuant to 40 CFR 63.1162(a)(6)]

e. For EP 15-02, the permittee shall operate the scrubber using a maximum monitoring set point for conductivity (high trigger), at which point the makeup water flow must be turned on, and a minimum monitoring set point (low trigger), at which point, the makeup water flow must be turned off, as established in the most recent performance test in which compliance was demonstrated. [EPA approval pursuant to 40 CFR 63.1162(a)(6)]

f. The permittee shall only store raw acid or ferrous chloride solution in PGL storage tanks (EP 15-06) that are vented to a wet scrubbing system at all times while the tanks are in service. The tank vent and scrubbing system shall be properly maintained and operated, treating hydrochloric acid emissions from the storage tanks, according to the following specifications:
   i. The wet scrubber shall meet the minimum scrubber makeup water and recirculating water flow rates according to manufacturer's recommendations or determined by the average of the values recorded during the performance test/or subsequent scrubber emission testing as specified in **3. Testing Requirements**.
   ii. The pressure drop across the scrubber shall be recorded at least once per shift and during the subsequent scrubber emission testing.

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

2. Emission Limitations:

a. For EPs 15-02, 15-05, and 15-06: The permittee shall not cause or allow to be discharged into the atmosphere:
   i. Any gases that contain HCl in a concentration in excess of 6 parts per million by volume (ppmv); or [40 CFR 63.1158(a)(1)(i)]
   ii. HCl at a mass emission rate that corresponds to a collection efficiency of less than 99 percent. [40 CFR 63.1157(a)(1)(ii)]

Compliance Demonstration Method:
Initial and continuous compliance with the hydrochloric acid emission limitations for EPs 15-02, 15-05, and 15-06 shall be determined by HCl emission testing in **3. Testing Requirements,** and establishment and maintenance of scrubber operating parameters, refer to **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); 401 KAR 51:017]

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

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

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

i. For process weight rates ≤ 0.50 ton/hr: 2.34 lb/hr
ii. For process weight rates >0.50 ton/hr up to 30.00 tons/hr: $E = 3.59 * P^{0.62}$
iii. For process weight rates > 30.00 tons/hr: $E = 17.3 * P^{0.16}$

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

Compliance Demonstration Method:
For the emission points listed above, compliance with the hourly limits in 401 KAR 59:010, Section 3(2) is assumed by operating according to good operation practices and maintaining the control device (if any) in accordance with manufacturer's specifications and the CAM plan.

3. Testing Requirements:

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

b. For EP 15-02, 15-05, and 15-06, the permittee shall conduct an initial performance test for each process or emission control device to determine and demonstrate compliance with the applicable emission limitation according to the requirements in 40 CFR 63.7 and 40 CFR 63.1161. Performance tests shall be conducted under such conditions as the Administrator specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1161(a)]

c. During the performance test for each emission control device, the permittee using a wet scrubber to achieve compliance with 40 CFR 63, Subpart CCC shall establish site-specific operating parameter values for the minimum scrubber makeup water flow rate and, for scrubbers that operate with recirculation, the minimum recirculation water flow rate. During the emission test, each operating parameter must be monitored continuously and recorded with sufficient frequency to establish a representative average value for that parameter, but no less frequently than once every 15 minutes. The permittee shall determine the operating parameter monitoring values as the averages of the values recorded during any of the runs for which results are used to establish the emission concentration or collection efficiency. The permittee may conduct multiple performance tests to establish alternative compliant operating parameter values. Also, the permittee may reestablish

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

compliant operating parameter values as part of any performance test that is conducted subsequent to the initial test or tests. [40 CFR 63.1161(b)]

Note:

i. Only for the Wet Scrubber controlling the PGL HCl Pickling Line (EP 15-02), the permittee may establish site-specific operating parameter values for the conductivity of the recirculation water in lieu of the makeup water flowrate. The conductivity meter used shall have an integrated temperature sensor, meet accuracy and calibration requirements of 40 CFR 63.1162(a)(5). [EPA approval pursuant to 40 CFR 63.1162(a)(6)]

ii. For the Wet Scrubber controlling the PGL HCl Pickling Line (EP 15-02), the permittee may establish the following site-specific operating parameter values: conductivity excursion limit (the highest conductivity recorded during a single stack test run in which compliance was demonstrated), high trigger point (makeup water flow on), and low trigger point (makeup water flow off). [EPA approval pursuant to 40 CFR 63.1162(a)(6)]

d. The following test methods in Appendix A of 40 CFR Part 60 shall be used to determine compliance with 40 CFR 63.1157(a), 63.1157(b), 63.1158(a), and 63.1158(b): [40 CFR 63.1161(d)(1)]

i. Method 1, to determine the number and location of sampling points, with the exception that no traverse point shall be within one inch of the stack or duct wall; [40 CFR 63.1161(d)(1)(i)]

ii. Method 2, to determine gas velocity and volumetric flow rate; [40 CFR 63.1161(d)(1)(ii)]

iii. Method 3, to determine the molecular weight of the stack gas; [40 CFR 63.1161(d)(1)(iii)]

iv. Method 4, to determine the moisture content of the stack gas; [40 CFR 63.1161(d)(1)(iv)]

v. Method 26A, "Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources -- Isokinetic Method," to determine the HCl mass flows at the inlet and outlet of a control device or the concentration of HCl discharged to the atmosphere. If compliance with a collection efficiency standard is being demonstrated, inlet and outlet measurements shall be performed simultaneously. The minimum sampling time for each run shall be 60 minutes and the minimum sample volume 0.85 dry standard cubic meters (30 dry standard cubic feet). The concentrations of HCl shall be calculated for each run as follows: [40 CFR 63.1161(d)(1)(v)]

$$C_{HCl}\ (ppmv) = 0.659 * C_{HCl}\ (mg/dscm)$$

Where:

$C_{HCl}\ (ppmv)$ = the concentration of HCl in ppmv; and

$C_{HCl}\ (mg/dscm)$ = the concentration in milligrams per dry standard cubic meter as calculated by the procedure given in Method 26A.

e. The permittee may use equivalent alternative measurement methods approved by the Administrator. [40 CFR 63.1161(d)(2)]

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

f. For EPs 15-02 and 15-06, the permittee shall conduct performance tests to measure the HCl mass flows at the control device inlet and outlet or the concentration of HCl exiting the control device according to the procedures described in 40 CFR 63.1161. Performance tests shall be conducted annually. If any performance test shows that the HCl emission limitation is being exceeded, then the permittee is in violation of the emission limit. [40 CFR 63.1162(a)(1)]

g. For EP 15-06, PGL Storage Tanks controlled by the ATF Wet Scrubber, the permittee may use U.S. EPA Reference Method 26 as an alternative to U.S. EPA Reference Method 26A for demonstrating compliance with applicable emission standards subject to the following conditions: [EPA approval pursuant to 40 CFR 63.1161(d)(2)]
   i. Any changes to the PGL Storage Tanks (EP 15-06) after February 8, 2023, void the alternative test approval.
   ii. A copy of the approval letter must accompany any test report that uses this alternative to demonstrate compliance with the applicable emission standards in 40 CFR 63.1158(a)(1).

h. For EP 15-05, the permittee shall conduct a performance test for each process to measure the concentration of HCl in gases exiting the process (to determine compliance with the applicable emission concentration standard according to the requirements in 40 CFR 63.7). [40 CFR 63.1161(a)]

4. Specific Monitoring Requirements:

a. For the wet scrubber controlling PGL Storage Tanks (EP 15-06), the permittee shall install, operate, and maintain systems for the measurement and recording of the scrubber makeup water flow rate and, if required, recirculation water flow rate. These flow rates must be monitored continuously and recorded at least once per shift while the scrubber is operating. Operation of the wet scrubber with excursions of scrubber makeup water flow rate and recirculation water flow rate less than the minimum values established during the performance test or tests will require initiation of corrective action as specified by the maintenance requirements in 40 CFR 63.1160(b)(2). [40 CFR 63.1162(a)(2)]

b. For the wet scrubber controlling PGL HCl Pickling Line (EP 15-02), in lieu of measurement and recording of the scrubber makeup water flow rate, the permittee may monitor and record the conductivity of scrubber recirculation water as in indicator of HCl concentration along with recirculation water flow rate. The conductivity meter shall have an integrated temperature sensor. [EPA approval pursuant to 40 CFR 63.1162(a)(6)]
   i. Conductivity shall be monitored continuously while the scrubber is operating and recorded at least once per shift. Corrective action must be initiated if the conductivity is indicated to be above the established excursion limit.
   ii. An “eyes-on” confirmation must be conducted and recorded at least once per day to ensure the conductivity output of the meter and the conductivity value recorded in electronic system correspond with one another.

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

c. Failure to record each of the operating parameters listed in 40 CFR 63.1162(a)(2) is a violation of the monitoring requirements of 40 CFR 63, Subpart CCC. [40 CFR 63.1162(a)(4)]

d. Each monitoring device shall be certified by the manufacturer to be accurate to within 5 percent and shall be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year. [40 CFR 63.1162(a)(5)]

e. The permittee may develop and implement alternative monitoring requirements subject to approval by the Administrator. [40 CFR 63.1162(a)(6)]

f. For EP 15-06, the permittee shall inspect each hydrochloric acid storage vessel semiannually to determine that the closed-vent system and either the air pollution control device or the enclosed loading and unloading line, whichever is applicable, are installed and operating when required. [40 CFR 63.1162(c)]

g. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation for each emission point;
   ii. Monthly and 12-month rolling process weight rate (tons) for each emission point;
   iii. For EP 15-01, daily pressure drop across the scale breaker baghouse.
   iv. For each wet scrubber, the pressure drop across the scrubber, at least once per shift.

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

i. The permittee shall perform monthly operational status inspections of the affected facilities and dust suppression equipment. The observations shall include but not be limited to, the physical appearance of all equipment. [401 KAR 50:055]

j. Upon detecting an excursion or exceedance (as defined in the appropriate CAM plan), the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator

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

range, designated condition, or below the applicable emission limitation or standard, as applicable. [40 CFR 64.7(d)(1)]

k. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance (as defined in the CAM plan) will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. [40 CFR 64.7(d)(2)]

l. Refer to **Appendix A** for CAM requirements pursuant to 40 CFR 64 for EPs 15-01 and 15-02.

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

5. Specific Recordkeeping Requirements:

a. As required by 40 CFR 63.10(b)(2), the permittee shall maintain records for 5 years from the date of each record of: [40 CFR 63.1165(a)]
   i. The occurrence and duration of each malfunction of operation (*i.e.,* process equipment); [40 CFR 63.1165(a)(1)]
   ii. The occurrence and duration of each malfunction of the air pollution control equipment; [40 CFR 63.1165(a)(2)]
   iii. All maintenance performed on the air pollution control equipment; [40 CFR 63.1165(a)(3)]
   iv. Actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1159(c) and the dates of such actions (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation); [40 CFR 63.1165(a)(4)]
   v. All required measurements needed to demonstrate compliance with 40 CFR 63, Subpart CCC and to support data that the source is required to report, including, but not limited to, performance test measurements (including initial and any subsequent performance tests) and measurements as may be necessary to determine the conditions of the initial test or subsequent tests; [40 CFR 63.1165(a)(5)]
   vi. All results of initial or subsequent performance tests; [40 CFR 63.1165(a)(6)]
   vii. If the permittee has been granted a waiver from recordkeeping or reporting requirements under 40 CFR 63.10(f), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements; [40 CFR 63.1165(a)(7)]
   viii. If the permittee has been granted a waiver from the initial performance test under 40 CFR 63.7(h), a copy of the full request and the Administrator's approval or disapproval; [40 CFR 63.1165(a)(8)]
   ix. All documentation supporting initial notifications and notifications of compliance status required by 40 CFR 63.9; [40 CFR 63.1165(a)(9)]
   x. Records of any applicability determination, including supporting analyses; [40 CFR 63.1165(a)(10)]

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

b. *Subpart CCC records.* In addition to the general records required by 40 CFR 63.1165(a), the permittee shall maintain records for 5 years from the date of each record of: [40 CFR 63.1165(b)(1)]
   i. Scrubber makeup water flow rate and recirculation water flow rate if a wet scrubber is used; [40 CFR 63.1165(b)(1)(i)] Note: For EP 15-02, Pickle Line Scrubber recirculation water conductivity, recirculation water flow rate, and operational set points (high trigger and low trigger);
   ii. Calibration and manufacturer certification that monitoring devices are accurate to within 5 percent; and [40 CFR 63.1165(b)(1)(ii)]
   iii. Each maintenance inspection and repair, replacement, or other corrective action. [40 CFR 63.1165(b)(1)(iii)]

c. The permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the source is no longer subject to the provisions of 40 CFR 63, Subpart CCC. In addition, if the operation and maintenance plan is revised, the permittee shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection by the Administrator for a period of 5 years after each revision to the plan. [40 CFR 63.1165(b)(3)]

d. General records and 40 CFR 63, Subpart CCC records for the most recent 2 years of operation must be maintained on site. Records for the previous 3 years may be maintained off site. [40 CFR 63.1165(c)]

e. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation for each emission point;
   ii. Monthly and 12-month rolling process weight rate (tons) for each emission point;
   iii. For EP 15-01, daily pressure drop across the scale breaker baghouse;
   iv. HCl usage rates and the appropriate MSDS;
   v. The qualitative visual observations required by **4. Specific Monitoring Requirements (h),** including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions.
   vi. Monthly operational status inspections, and any maintenance performed as a result of the inspections.
   vii. For each wet scrubber, the pressure drop across the scrubber, at least once per shift.

f. For EPs 15-01 and 15-02, the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). [40 CFR 64.9(b)(1)]

g. For EPs 15-01 and 15-02, instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche,

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

provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b)(2)]

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

6. Specific Reporting Requirements:

a. The permittee shall notify the Administrator in writing that the source is subject to 40 CFR 63, Subpart CCC no later than 120 days after initial startup. The notification shall contain the information specified in 40 CFR 63.9(b)(2)(i) through 63.9(b)(2)(v) of subpart A, delivered or postmarked with the notification required in 40 CFR 63.9(b)(5) of subpart A. [40 CFR 63.1163(a)(3)]

b. *Reporting results of performance tests.* Within 60 days after the date of completing each performance test (defined in 40 CFR 63.2), as required by 40 CFR 63, Subpart CCC, the permittee shall submit the results of the performance tests, including any associated fuel analyses, required by 40 CFR 63 Subpart CCC according to the requirements in 40 CFR 63.1164(a). [40 CFR 63.1164(a)]

c. *Reporting malfunctions.* The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded shall be stated in a semiannual report. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.1159(c), including actions taken to correct a malfunction. The report, to be certified by the owner or operator or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th day following the end of each calendar half. [40 CFR 63.1164(c)]

d. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring under CAM (Appendix A) did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Division and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 CFR 64.7(e)]

e. For EPs 15-01 and 15-02, on and after the date specified in 40 CFR 64.7(a) by which the permittee must use monitoring that meets the requirements of 40 CFR 64, the permittee shall submit monitoring reports to the Division in accordance with **SECTION F**. [40 CFR 64.9(a)(1)]

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

f. For EPs 15-01 and 15-02, a report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under 40 CFR 70.6(a)(3)(iii) and the following information, as applicable: [40 CFR 64.9(a)(2)]
   i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; [40 CFR 64.9(a)(2)(i)]
   ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and [40 CFR 64.9(a)(2)(ii)]
   iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. [40 CFR 64.9(a)(2)(iii)]
   iv. The threshold for requiring the implementation of a QIP is an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a semiannual reporting period. [40 CFR 64.8(a)]

g. Refer to **Appendix A** for reporting requirements under 40 CFR 64 for EPs 15-01 and 15-02.

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

7. Specific Control Equipment Operating Conditions:

a. The permittee shall prepare an operation and maintenance plan for each emission control device used to comply with 40 CFR 63, Subpart CCC (Wet Scrubber #1 and ATF Wet Scrubber), to be implemented no later than startup. The plan is incorporated by reference into this Title V permit. All such plans must be consistent with good maintenance practices, and, for a scrubber emission control device, must at a minimum: [40 CFR 63.1160(b)(1)]
   i. Require monitoring and recording the pressure drop across the scrubber once per shift while the scrubber is operating in order to identify changes that may indicate a need for maintenance; [40 CFR 63.1160(b)(1)(i)]
   ii. Require the manufacturer's recommended maintenance at the recommended intervals on fresh solvent pumps, recirculating pumps, discharge pumps, and other liquid pumps, in addition to exhaust system and scrubber fans and motors associated with those pumps and fans; [40 CFR 63.1160(b)(1)(ii)]
   iii. Require cleaning of the scrubber internals and mist eliminators at intervals sufficient to prevent buildup of solids or other fouling; [40 CFR 63.1160(b)(1)(iii)]
   iv. Require an inspection of each scrubber at intervals of no less than 3 months with: [40 CFR 63.1160(b)(1)(iv)]
      1) Cleaning or replacement of any plugged spray nozzles or other liquid delivery devices; [40 CFR 63.1160(b)(1)(iv)(A)]
      2) Repair or replacement of missing, misaligned, or damaged baffles, trays, or other internal components; [40 CFR 63.1160(b)(1)(iv)(B)]
      3) Repair or replacement of droplet eliminator elements as needed; [40 CFR 63.1160(b)(1)(iv)(C)]

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

4) Repair or replacement of heat exchanger elements used to control the temperature of fluids entering or leaving the scrubber; and [40 CFR 63.1160(b)(1)(iv)(D)]
5) Adjustment of damper settings for consistency with the required air flow. [40 CFR 63.1160(b)(1)(iv)(E)]

v. If the scrubber is not equipped with a viewport or access hatch allowing visual inspection, alternate means of inspection approved by the Administrator may be used. [40 CFR 63.1160(b)(1)(v)]

vi. The permittee shall initiate procedures for corrective action within 1 working day of detection of an operating problem and complete all corrective actions as soon as practicable. Procedures to be initiated are the applicable actions that are specified in the maintenance plan. Failure to initiate or provide appropriate repair, replacement, or other corrective action is a violation of the maintenance requirement of 40 CFR 63 Subpart CCC. [40 CFR 63.1160(b)(1)(vi)]

vii. The permittee shall maintain a record of each inspection, including each item identified in 40 CFR 63.1160(b)(1)(iv), that is signed by the responsible maintenance official and that shows the date of each inspection, the problem identified, a description of the repair, replacement, or other corrective action taken, and the date of the repair, replacement, or other corrective action taken. [40 CFR 63.1160(b)(1)(vii)]

b. For the conductivity meter used in the wet scrubber on EP 15-02, the permittee shall conduct calibration every six months for a period of two years.
   i. The calibration must use an upper range (span) of no higher than 100 mS/cm and shall continue to use a reference solution of 50 mS/cm. [EPA approval pursuant to 40 CFR 63.1162(a)(6)]
   i. If all calibration reports demonstrate that the conductivity meter is within the required 5% accuracy range over the two year period, the permittee may return to annual calibration with the written approval of the Division. If the conductivity meter is found to be out of the required 5% range at any point, the permittee shall calibrate the meter once every six months for an additional two years. [EPA approval pursuant to 40 CFR 63.1162(a)(6)]

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

d. Refer to **SECTION E.**

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

Group 15

Emission Unit 15 (EU 15) – Pickle Galv Line (PGL) &
Emission Unit 23 (EU 23) – Air Separation Plant

Emission Point #	Unit Name	Burner Maximum Capacity (MMBtu/hr)	Fuel Used	Control Device	Construction Commenced
Emission Unit 15 (EU 15) – Pickle Galv Line (PGL)					
15-03	Pickling Boiler #1	25.2 MMBtu/hr	Natural Gas	None	2017
15-04	Pickling Boiler #2	25.2 MMBtu/hr	Natural Gas	None	2017
Emission Unit 23 (EU 23) – Air Separation Plant					
23-01	Air Separation Unit Water Bath Vaporizer (2 indirect burners)	14.5 MMBtu/hr, each	Natural Gas	None	2020

APPLICABLE REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality*, applies to EU 23

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

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

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

1. Operating Limitations:

a. For EPs 15-03 & 15-04, the permittee shall not exceed a combined total natural gas usage of 260 MMscf per year on a rolling 12-month basis. [Self-imposed to limit PTE]

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

b. The permittee shall meet the requirements in 40 CFR 63.7500(a)(1) through (3), except as provided in 40 CFR 63.7500(b) through (e). The permittee shall meet these requirements at all times the affected unit is operating, except as provided in 40 CFR 63.7500(f). [40 CFR 63.7500(a)]

i. The permittee shall meet each work practice standard in Table 3 to 40 CFR 63, Subpart DDDDD that applies to the boiler or process heater, for each boiler or process heater. [40 CFR 63.7500(a)(1)]

ii. At all times, the permittee shall operate and maintain any affected source (as defined in 40 CFR 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and

maintenance procedures are being used will be based on information available to the Division that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.7500(a)(3)]

c. The permittee shall be in compliance with the work practice standards and operating limits in 40 CFR 63, Subpart DDDDD. These emission and operating limits apply at all times the affected unit is operating. [40 CFR 63.7505(a)]

d. The permittee shall demonstrate initial compliance with the applicable work practice standards in Table 3 to 40 CFR 63, Subpart DDDDD within the applicable annual, biennial, or 5-year schedule as specified in 40 CFR 63.7515(d) following the initial compliance date specified in 40 CFR 63.7495(a). Thereafter, the permittee is required to complete the applicable annual, biennial, or 5-year tune-up as specified in 40 CFR 63.7515(d). [40 CFR 63.7510(g)]

e. The permittee shall conduct an annual, biennial, or 5-year performance tune-up according to 40 CFR 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in 40 CFR 63.7540(a)(10) shall be no more than 13 months after the previous tune-up. Each biennial tune-up specified in 40 CFR 63.7540(a)(11) shall be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in 40 CFR 63.7540(a)(12) shall be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in 40 CFR 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source. [40 CFR 63.7515(d)]

f. The permittee shall complete a subsequent tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi) and the schedule described in 40 CFR 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up. [40 CFR 63.7515(g)]

Compliance Demonstration Method:

A. The permittee shall demonstrate continuous compliance with the work practice standards in Table 3 to 40 CFR 63, Subpart DDDDD that apply according to the methods specified in Table 8 to 40 CFR 63, Subpart DDDDD and 40 CFR 63.7540(a)(1) through (19). [40 CFR 63.7540(a)]

B. The permittee shall conduct an annual tune-up of each boiler or process heater to demonstrate continuous compliance as specified in 40 CFR 63.7540(a)(10)(i) through (vi). The permittee shall conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the process heater over the 12 months prior to the tune-up. [40 CFR 63.7540(a)(10)]

1. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only

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

during planned entries into the storage vessel or process equipment; [40 CFR 63.7540(a)(10)(i)]

2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; [40 CFR 63.7540(a)(10)(ii)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). [40 CFR 63.7540(a)(10)(iii)]
4. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject; [40 CFR 63.7540(a)(10)(iv)]
5. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and [40 CFR 63.7540(a)(10)(v)]
6. Maintain on-site and submit, if requested by the Division, a report containing the information in 40 CFR 63.7540(a)(10)(vi)(A) through (C), [40 CFR 63.7540(a)(10)(vi)]
   I. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; [40 CFR 63.7540(a)(10)(vi)(A)]
   II. A description of any corrective actions taken as a part of the tune-up; and [40 CFR 63.7540(a)(10)(vi)(B)]
   III. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. [40 CFR 63.7540(a)(10)(vi)(C)]

C. For boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1 subcategory, the permittee shall conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs 40 CFR 63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. The permittee may delay the burner inspection specified in paragraph 40 CFR 63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but the permittee shall inspect each burner at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. [40 CFR 63.7540(a)(12)]

D. If the unit is not operating on the required date for tune-up, the tune-up shall be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13)]

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

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

g. The permittee shall prepare and maintain for EP 23-01 within 90 days of startup, a good combustion and operation practices (GCOP) plan that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing PM, PM_{10}, $PM_{2.5}$, NO_x, CO, SO_2, VOC, and GHG emissions. Any revisions to the GCOP plan requested by the Division shall be made and the revisions shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not be limited to: [401 KAR 51:017]
   i. A list of combustion optimization practices and a means of verifying the practices have occurred.
   ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred.
   iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.

Compliance Demonstration Method:
Refer to **5. Specific Recordkeeping Requirements (f)** and **(g)**, and **6. Specific Reporting Requirements (c)**.

h. The permittee shall meet the following design and operational requirements for EP 23-01 as the BACT determination for GHG: [401 KAR 51:017]
   i. Use only pipeline quality natural gas.
   ii. Install, operate, and maintain a combustion system that includes air-to-fuel ratio control for improved fuel efficiency, adequate temperature for complete combustion, and sufficient gas residence time to complete combustion.
   iii. Conduct periodic calibration of gas supply system in accordance with manufacturer's recommended procedures and schedule.
   iv. Maintain gas supply valves in accordance with the manufacturer's recommended procedures and schedule.

Compliance Demonstration Method:
Compliance shall be demonstrated as follows:
A. The facility construction shall be completed in accordance with the BACT determination for GHGs and incorporating the design elements listed above. Refer to **6. Specific Reporting Requirements (d)**.
B. Prepare, maintain, and implement the GCOP plan. Refer to **1. Operating Limitations (g)**.

2. Emission Limitations:

a. The permittee shall not cause emissions of particulate matter in excess of the values in the following table: [401 KAR 59:015, Section 4(1)]

Emission Point	Affected Facility	PM Emission Limit (lb/MMBtu)
15-03	Boiler #1	0.34

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Emission Point	Affected Facility	PM Emission Limit (lb/MMBtu)
15-04	Boiler #2	0.34
23-01	Air Separation Unit Water Bath Vaporizer (indirect)	0.31

b. The permittee shall not cause emissions of particulate matter in excess of twenty (20) percent opacity, except: [401 KAR 59:015, Section 4(2)]
   i. A maximum of twenty-seven (27) percent opacity shall be allowed for one (1) six (6) minute period in any sixty (60) consecutive minutes. [401 KAR 59:015, Section 4(2)(a)]

c. The permittee shall not cause emissions of gases that contain sulfur dioxide in excess of the values in the following table: [401 KAR 59:015, Section 5(1)(c)]

Emission Point	Affected Facility	SO_2 Emission Limit (lb/MMBtu)
15-03	Boiler #1	1.2
15-04	Boiler #2	1.2
23-01	Air Separation Unit Water Bath Vaporizer (indirect)	1.1

Compliance Demonstration Method:
These units are assumed to be in compliance with **2. Emission Limitations (a) – (c)** when combusting natural gas.

d. Emissions of PM, PM_{10}, and $PM_{2.5}$ shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for PM (filterable)	BACT for PM_{10}	BACT for $PM_{2.5}$
23-01	Air Separation Unit Water Bath Vaporizer (indirect)	1.9 lbs/MMscf; 0.24 ton/yr	7.6 lbs/MMscf; 0.95 ton/yr	7.6 lbs/MMscf; 0.95 ton/yr

Compliance Demonstration Method:
The permittee shall demonstrate compliance by meeting the requirements in **1. Operating Limitations**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements.**

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

e. ***Lead (Pb), CO, NO_x, SO_2, and GHG Emission Standard:*** Emissions of Lead (Pb), CO, NO_x, SO_2, and GHG shall not exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for Lead (Pb)	BACT for CO	BACT for NO_x	BACT for SO_2	BACT for GHG (CO_2e)
23-01	Air Separation Unit Water Bath Vaporizer (indirect)	0.0005 lb/MMscf; 6.23×10^{-5} ton/yr	84 lb/MMscf; 10.46 ton/yr	50 lb/MMscf; 6.23 ton/yr	0.6 lb/MMscf; 0.075 ton/yr	15,032 ton/yr

Compliance Demonstration Method:
Compliance with the 401 KAR 51:017 emission limitations for Lead (Pb), CO, NO_x, SO_2, and GHGs will be demonstrated by meeting the requirements in **1. Operating Limitations**, **4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

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

Emission Point	Description	BACT for VOC
23-01	Air Separation Unit Water Bath Vaporizer (indirect)	5.5 lb/MMscf; 0.68 ton/yr

Compliance Demonstration Method:
Compliance with the 401 KAR 51:017 emission limitations for VOC will be demonstrated by meeting the requirements in **1. Operating Conditions**, **4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements**, and **6. Specific Reporting Requirements**.

g. Refer to **SECTION D.**

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

4. Specific Monitoring Requirements:
a. The permittee shall use a fuel metering device to continuously monitor the amount of natural gas (MMscf) fed to the emission points listed above. The permittee may use a combined meter for multiple emission points, as long as the natural gas apportioned to all emission points sums to 100% of the natural gas used. [401 KAR 52:020, Section 10]

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the amount of natural gas (MMscf) combusted in each unit, on a monthly and 12-month rolling basis. [40 CFR 60.48c(g) and 401 KAR 52:020, Section 10]

b. The permittee shall keep records according to 40 CFR 63.7555(a)(1) and (2). [40 CFR 63.7555(a)]
   i. A copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]
   ii. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). [40 CFR 63.7555(a)(2)]

c. The records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). [40 CFR 63.7560(a)]

d. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.7560(b)]

e. The permittee must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3 years. [40 CFR 63.7560(c)]

f. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation for each emission point;
   ii. The monthly and 12-month rolling emissions of PM, PM_{10}, $PM_{2.5}$, NO_x, CO, SO_2, VOC, Pb, and GHGs;
   iii. The GCOP plan required by **1. Operating Limitations (g)** as well as any revisions;

g. The permittee shall maintain records of any time that an emission point listed above was not operated according to the GCOP plan required by **1. Operating Limitations (g)** with a description of the situation and actions taken to remedy the issue. [401 KAR 51:017]

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

6. Specific Reporting Requirements:

a. The permittee shall submit notification of the date of construction and actual startup, as provided by 40 CFR 60.7. The notification shall include the design heat input capacity of

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

the affected facility and identification of fuels to be combusted in the affected facility. [40 CFR 60.48c(a)(1)]

b. The permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.7545(e). [40 CFR 63.7530(f)]

c. The permittee shall include, in the semi-annual report, any time that the emission units listed above were not operated according to the GCOP plan required by **1. Operating Limitations (g)** with a description of the situation and actions taken to remedy the issue. Refer to **5. Specific Recordkeeping Requirements (d)**. [401 KAR 51:017]

d. The permittee shall submit, within 180 days of startup, certification that the design elements proposed as BACT for the emission points listed above have been implemented in the final construction. [401 KAR 51:017]

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

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

Group 17

Emission Unit 16 (EU 16) – PGL Finishing Operations

Emission Point #	Unit Name	Maximum Short-Term Capacity	Maximum Long-Term Capacity	Burner Maximum Capacity (MMBtu/hr)	Control Device	Construction Commenced
Emission Unit 16 (EU 16) – PGL Finishing Operations						
16-04	Chromate Roll Coater & Dryer	180 tons/hr	1,576,800 tons/yr	9 MMBtu/hr	None	2017
16-05	Stenciling	180 tons/hr	1,576,800 tons/yr	----	None	2017

*Note: Chromate solution and ink usage are limited by an operational limitation, below.

APPLICABLE REGULATIONS:

401 KAR 59:010, *New process operations*

401 KAR 60:005, Section 2(2)(zz), **40 C.F.R. 60.460 to 60.466 (Subpart TT)**, *Standards of Performance for Metal Coil Surface Coating*

401 KAR 63:002, Section 2(4)(xxx), **40 C.F.R. 63.5080 to 63.5200, Tables 1 to 2 (Subpart SSSS),** *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil*

1. Operating Limitations:

At all times, the permittee must operate and maintain the affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the affected source. [40 CFR 63.5140(b)]

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. Specific Monitoring Requirements (b)** and **5. Specific Recordkeeping Requirements (f).**

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

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

i. For process weight rates ≤ 0.50 ton/hr: 2.34 lb/hr
ii. For process weight rates > 0.50 ton/hr up to 30.00 tons/hr: $E = 3.59 * P^{0.62}$
iii. For process weight rates > 30.00 tons/hr: $E = 17.3 * P^{0.16}$
Where:
E = the allowable PM emissions rate (pounds/hr)
P = the process weight rate (tons/hr)

Compliance Demonstration Method:
Compliance with **2. Emission Limitations (b)** is assumed based on the rates of particulate emissions calculated from the information provided in the application submitted by the source.

c. For EP 16-04 & 16-05: The permittee shall not cause to be discharged into the atmosphere more than 0.28 kilogram VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that does not use an emission control device(s). [40 CFR 60.462(a)(1)]

Compliance Demonstration Method:
The permittee shall use the following procedures for each affected facility that does not use a capture system and control device to comply with the emission limit specified under 40 CFR 60.462(a)(1). The permittee shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or by an analysis of each coating, as received, using Method 24. The Administrator may require the permittee who uses formulation data supplied by the manufacturer of the coatings to determine the VOC content of coatings using Method 24 or an equivalent or alternative method. The permittee shall determine the volume of coating and the mass of VOC-solvent added to coatings from company records on a monthly basis. If a common coating distribution system serves more than one affected facility or serves both affected and existing facilities, the permittee shall estimate the volume of coating used at each affected facility by using the average dry weight of coating and the surface area coated by each affected and existing facility or by other procedures acceptable to the Administrator. [40 CFR 60.463(c)(1)]

A. Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied during each calendar month for each affected facility, except as provided under 40 CFR 60.463(c)(1)(iv). The weighted average of the total mass of VOC's used per unit volume of coating solids applied each calendar month is determined by the following procedures. [40 CFR 60.463(c)(1)(i)]
1) Calculate the mass of VOC's used ($M_o + M_d$) during each calendar month for each affected facility by the following equation: [40 CFR 60.463(c)(1)(i)(A)]

$$M_o + M_d = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{j=1}^{m} L_{dj} D_{dj}$$

($\sum L_{dj} D_{dj}$ will be 0 if no VOC solvent is added to the coatings, as received)
Where:
n = the number of different coatings used during the calendar month, and

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

m = the number of different VOC solvents added to coatings used during the calendar month
M_o = the mass of VOC's in coatings consumed, as received (kilograms).
M_d = the mass of VOC-solvent added to coatings (kilograms).
L_{ci} = the volume of each coating consumed, as received (liters).
D_{ci} = density of each coating, as received (kilograms per liter).
W_{oi} = the proportion of VOC's in each coating, as received (fraction by weight).
L_{dj} = the volume of each VOC-solvent added to coatings (liters).
D_{dj} = density of each VOC-solvent added to coatings (kilograms per liter).

2) Calculate the total volume of coating solids used (L_s) in each calendar month for each affected facility by the following equation: [40 CFR 60.463(c)(1)(i)(B)]

$$L_s = \sum_{i=1}^{n} V_{si} L_{ci}$$

Where:
n = the number of different coatings used during the calendar month.
V_{si} = the proportion of solids in each coating, as received (fraction by volume).
L_{ci} = the volume of each coating consumed, as received (liters).

3) Calculate the volume-weighted average mass of VOC's used per unit volume of coating solids applied (G) during the calendar month for each affected facility by the following equation: [40 CFR 60.463(c)(1)(i)(C)]

$$G = \frac{M_o + M_d}{L_s}$$

B. Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during the calendar month for each affected facility by the following equation: [40 CFR 60.463(c)(1)(ii)]

N = G

C. Where the volume-weighted average mass of VOC's discharged to the atmosphere per unit volume of coating solids applied (N) is equal to or less than 0.28 kg/l, the affected facility is in compliance. [40 CFR 60.463(c)(1)(iii)]

D. If each individual coating used by an affected facility has a VOC content, as received, that is equal to or less than 0.28 kg/l of coating solids, the affected facility is in compliance provided no VOC's are added to the coatings during distribution or application. [40 CFR 60.463(c)(1)(iv)]

d. Each coil coating affected source must limit organic HAP emissions to no more than 0.046 kilogram (kg) of organic HAP per liter of solids applied during each 12-month compliance period. The permittee shall be in compliance with the standard at all times, including periods of start-up, shutdown, and malfunction. [40 CFR 63.5120(a)(2); 40 CFR 63.5140(a)]

Compliance Demonstration Method:
The permittee shall include all coating materials (as defined in 40 CFR 63.5110) used in the affected source when determining compliance with the applicable emission limit in 40 CFR 63.5120. To make this determination, the permittee shall use at least one of the four

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

compliance options listed in Table 1 of 40 CFR 63.5170. The permittee may apply any of the compliance options to an individual coil coating line, or to multiple lines as a group, or to the entire affected source. The permittee may use different compliance options for different coil coating lines, or at different times on the same line. However, the permittee may not use different compliance options at the same time on the same coil coating line. If the permittee switches between compliance options for any coil coating line or group of lines, the permittee shall document this switch as required by 40 CFR 63.5190(a), and the permittee shall report it in the next semiannual compliance report required in 40 CFR 63.5180. [40 CFR 63.5170]

A. *As-purchased compliant coatings*. If the permittee elects to use coatings that individually meet the organic HAP emission limit in 40 CFR 63.5120(a)(2) as-purchased, to which the permittee will not add HAP during distribution or application, the permittee shall demonstrate that each coating material applied during the 12-month compliance period contains no more than 0.046 kg HAP per liter of solids on an as-purchased basis. [40 CFR 63.5170(a)]
   1) Determine the organic HAP content for each coating material in accordance with 40 CFR 63.5160(b) and the volume solids content in accordance with 40 CFR 63.5160(c). [40 CFR 63.5170(a)(1)]
   2) Combine these results using Equation 1 of 40 CFR 63.5170 (below) and compare the result to the organic HAP emission limit in 40 CFR 63.5120(a)(2) to demonstrate that each coating material contains no more organic HAP than the limit. [40 CFR 63.5170(a)(2)]

$$H_{siap} = \frac{C_{hi} D_i}{V_{si}}$$

Where:

H_{siap} = as-purchased, organic HAP to solids ratio of coating material, i, kg organic HAP/liter solids applied.

C_{hi} = organic HAP content of coating material, i, expressed as a weight-fraction, kg/kg.

D_i = density of coating material, i, kg/l.

V_{si} = volume fraction of solids in coating, i, l/l.

B. *As-applied compliant coatings*. If the permittee choose to use "as-applied" compliant coatings, the permittee shall demonstrate that the average of each coating material applied during the 12-month compliance period contains no more than 0.046 kg of organic HAP per liter of solids applied in accordance with 40 CFR 63.5170(b)(1), or demonstrate that the average of all coating materials applied during the 12-month compliance period contain no more than 0.046 kg of organic HAP per liter of solids applied in accordance with 40 CFR 63.5170(b)(2). [40 CFR 63.5170(b)]
   1) To demonstrate that the average organic HAP content on the basis of solids applied for each coating material applied, $H_{Si\ yr}$, is less than 0.046 kg HAP per liter solids applied for the 12-month compliance period, use Equation 2 of 40 CFR 63.5170 (below): [40 CFR 63.5170(b)(1)]

$$H_{Si\ yr} = \frac{\sum_{y=1}^{12} \left[V_i D_i C_{ahi} + \sum_{i=1}^{q} V_j D_j C_{hij} \right]}{\sum_{y=1}^{12} V_i V_{si}}$$

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Where:

$H_{Si\,yr}$ = average for the 12-month compliance period, as-applied, organic HAP to solids ratio of material, i, kg organic HAP/liter solids applied.
V_i = volume of coating material, i, l.
D_i = density of coating material, i, kg/l.
C_{ahi} = monthly average, as-applied, organic HAP content of solids-containing coating material, i, expressed as a weight fraction, kilogram (kg)/kg.
V_j = volume of solvent, j, l.
D_j = density of solvent, j, kg/l.
C_{hij} = organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg.
V_{si} = volume fraction of solids in coating, i, l/l.
y = identifier for months.
q = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

2) To demonstrate that the average organic HAP content on the basis of solids applied, $H_{S\,yr}$, of all coating materials applied is less than 0.046 kg HAP per liter solids applied for the 12-month compliance period, use Equation 3 of 40 CFR 63.5170 (below): [40 CFR 63.5170(b)(2)]

$$H_{S\,yr} = \frac{\sum_{y=1}^{12}\left[\sum_{i=1}^{p} V_i D_i C_{ahi} + \sum_{j=1}^{q} V_j D_j C_{hij}\right]}{\sum_{y=1}^{12}\left[\sum_{i=1}^{y} V_i V_{si}\right]}$$

Where:

$H_{S\,yr}$ = average for the 12-month compliance period, as-applied, organic HAP to solids ratio of all materials applied, kg organic HAP/liter solids applied.
V_i = volume of coating material, i, l.
D_i = density of coating material, i, kg/l.
C_{ahi} = monthly average, as-applied, organic HAP content of solids-containing coating material, i, expressed as a weight fraction, kilogram (kg)/kg.
V_j = volume of solvent, j, l.
D_j = density of solvent, j, kg/l.
C_{hij} = organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg.
V_{si} = volume fraction of solids in coating, i, l/l.
p = number of different coating materials applied in a month.
q = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.
y = identifier for months.

3. Testing Requirements:

a. The permittee shall conduct an initial performance test as required under 40 CFR 60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in 40 CFR 60.463. [40 CFR 60.463(b)]

b. The reference methods in appendix A to Part 60, except as provided under 40 CFR 60.8(b), shall be used to determine compliance with 40 CFR 60.462 as follows: [40 CFR 60.466(a)]

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

i. Method 24, or data provided by the formulator of the coating, shall be used for determining the VOC content of each coating as applied to the surface of the metal coil. In the event of a dispute, Method 24 shall be the reference method. When VOC content of waterborne coatings, determined by Method 24, is used to determine compliance of affected facilities, the results of the Method 24 analysis shall be adjusted as described in Section 12.6 of Method 24; [40 CFR 60.466(a)(1)]
ii. Method 25, both for measuring the VOC concentration in each gas stream entering and leaving the control device on each stack equipped with an emission control device and for measuring the VOC concentration in each gas stream emitted directly to the atmosphere; [40 CFR 60.466(a)(2)]
iii. Method 1 for sample and velocity traverses; [40 CFR 60.466(a)(3)]
iv. Method 2 for velocity and volumetric flow rate; [40 CFR 60.466(a)(4)]
v. Method 3 for gas analysis; and [40 CFR 60.466(a)(5)]
vi. Method 4 for stack gas moisture. [40 CFR 60.466(a)(6)]

c. For Method 24, the coating sample must be at least a 1-liter sample taken at a point where the sample will be representative of the coating as applied to the surface of the metal coil. [40 CFR 60.466(b)]

d. For Method 25, the sampling time for each of three runs is to be at least 60 minutes, and the minimum sampling volume is to be at least 0.003 dscm (0.11 dscf); however, shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator. [40 CFR 60.466(c)]

e. The Administrator will approve testing of representative stacks on a case-by-case basis if the permittee can demonstrate to the satisfaction of the Administrator that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks. [40 CFR 60.466(d)]

f. The permittee shall determine the organic HAP weight fraction of each coating material applied by following one of the procedures in 40 CFR 63.5160(b)(1) through (4): [40 CFR 63.5160(b)]
   i. *Method 311*. The permittee shall test the material in accordance with Method 311 of appendix A of 40 CFR Part 63. The Method 311 determination may be performed by the manufacturer of the material and the results provided to the permittee. The organic HAP content shall be calculated according to the criteria and procedures in 40 CFR 63.5160(b)(1)(i) through (iii). [40 CFR 63.5160(b)(1)]
      1) Count only those organic HAP in Table 3 of 40 CFR 63, Subpart SSSS that are measured to be present at greater than or equal to 0.1 weight percent and greater than or equal to 1.0 weight percent for other organic HAP compounds. [40 CFR 63.5160(b)(1)(i)]
      2) Express the weight fraction of each organic HAP counted according to 40 CFR 63.5160(b)(1)(i) as a value truncated to four places after the decimal point (for example, 0.3791). [40 CFR 63.5160(b)(1)(ii)]
      3) Calculate the total weight fraction of organic HAP in the tested material by summing the counted individual organic HAP weight fractions and truncating the

result to three places after the decimal point (for example, 0.763). [40 CFR 63.5160(b)(1)(iii)]

ii. *Method 24 in appendix A-7 of part 60.* For coatings, the permittee may determine the total volatile matter content as weight fraction of nonaqueous volatile matter and use it as a substitute for organic HAP, using Method 24 in appendix A-7 of part 60. As an alternative to using Method 24, the permittee may use ASTM D2369-10 (2015), "Test Method for Volatile Content of Coatings" (incorporated by reference, see 40 CFR 63.14). The determination of total volatile matter content using a method specified in 40 CFR 63.5160(b)(2) or as provided in 40 CFR 63.5160(b)(3) may be performed by the manufacturer of the coating and the results provided to the permittee. [40 CFR 63.5160(b)(2)]

iii. *Alternative method.* The permittee may use an alternative test method for determining the organic HAP weight fraction once the Administrator has approved it. The permittee shall follow the procedure in 40 CFR 63.7(f) to submit an alternative test method for approval. [40 CFR 63.5160(b)(3)]

iv. *Formulation data.* The permittee may use formulation data provided that the information represents each organic HAP in Table 3 of 40 CFR 63, Subpart SSSS that is present at a level equal to or greater than 0.1 percent and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used, weighted by the mass fraction of each raw material used in the material. Formulation data may be provided by the manufacturer of the coating material. In the event of any inconsistency between test data obtained with the test methods specified in 40 CFR 63.5160(b)(1) through (3) and formulation data, the test data will govern. [40 CFR 63.5160(b)(4)]

g. The permittee shall determine the solids content and the density of each coating material applied. The permittee may determine the volume solids content using ASTM D2697-03(2014) Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings (incorporated by reference, see 40 CFR 63.14) or ASTM D6093-97 (2016) Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer (incorporated by reference, see 40 CFR 63.14), or an EPA approved alternative method. The permittee shall determine the density of each coating using ASTM D1475-13 "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see 40 CFR 63.14) or ASTM D2111-10 (2015) "Standard Test Methods for Specific Gravity and Density of Halogenated Organic Solvents and Their Admixtures" (incorporated by reference, see 40 CFR 63.14). The solids determination using ASTM D2697-03(2014) or ASTM D6093-97 (2016) and the density determination using ASTM D1475-13 or ASTM 2111-10 (2015) may be performed by the manufacturer of the material and the results provided to the permittee. Alternatively, the permittee may rely on formulation data provided by material providers to determine the volume solids. In the event of any inconsistency between test data obtained with the ASTM test methods specified in this section and formulation data, the test data will govern. [40 CFR 63.5160(c)]

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

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

4. Specific Monitoring Requirements:

a. The permittee shall compute and record the average VOC content of coatings applied during each calendar month for each affected facility, according to the equations provided in 40 CFR 60.463. [40 CFR 60.464(a)]

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

c. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation for each emission point;
   ii. Monthly process weight rate (tons) for each emission point;
   iii. For EP 16-04, monthly rolling natural gas combusted (MMscf). If the permittee elects not to install a fuel metering device to continuously monitor the amount of natural gas fed to each emission point, the permittee may use a combined meter for multiple emission points, as long as the natural gas apportioned to all emission points sums to 100% of the natural gas used;

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

5. Specific Recordkeeping Requirements:

a. The permittee shall include in the initial compliance report required by 40 CFR 60.8 the weighted average of the VOC content of coatings used during a period of one calendar month for each affected facility. [40 CFR 60.465(a)]

b. The permittee shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. [40 CFR 60.465(e)]

c. The permittee shall maintain the records specified in 40 CFR 5190(a) and (b) in accordance with 40 CFR 63.10(b)(1); [40 CFR 63.5190(a)]
   i. Records of the coating lines on which the permittee used each compliance option and the time periods (beginning and ending dates and times) the permittee used each option. [40 CFR 63.5190(a)(1)]
   ii. Records specified in 40 CFR 63.10(b)(2) of all measurements needed to demonstrate compliance with 40 CFR 63, Subpart SSSS, including: [40 CFR 63.5190(a)(2)]
      1) Organic HAP content data for the purpose of demonstrating compliance in accordance with 40 CFR 63.5160(b); [40 CFR 63.5190(a)(2)(iii)]
      2) Volatile matter and solids content data for the purpose of demonstrating compliance in accordance with 40 CFR 63.5160(c); [40 CFR 63.5190(a)(2)(iv)]

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

3) Material usage, HAP usage, volatile matter usage, and solids usage and compliance demonstrations using these data in accordance with 40 CFR 63.5170(a), (b), and (d); [40 CFR 63.5190(a)(2)(vi)]

iii. Records specified in 40 CFR 63.10(b)(3). [40 CFR 63.5190(a)(3)]

d. Maintain records of all liquid-liquid material balances that are performed in accordance with the requirements of 40 CFR 63.5170. [40 CFR 63.5190(b)]

e. Any records required to be maintained by 40 CFR 63, Subpart SSSS that are in reports that were submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [40 CFR 63.5190(c)]

f. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation for each emission point;
   ii. Monthly process weight rate (tons) for each emission point;
   iii. Monthly natural gas combusted (MMscf) in each emission point;
   iv. 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.

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

6. Specific Reporting Requirements:

a. Following the initial performance test, the permittee of an affected facility shall identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under 40 CFR 60.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually. [40 CFR 60.465(c)]

b. The permittee shall submit a Notification of Compliance Status as specified in 40 CFR 63.9(h). The permittee shall submit the Notification of Compliance Status no later than 30 calendar days following the end of the initial 12-month compliance period described in 40 CFR 63.5130. [40 CFR 63.5180(d)]

c. The permittee shall submit semi-annual compliance reports containing the information specified in 40 CFR 63.5180(g)(1) and (2). [40 CFR 63.5180(g)]
   i. *Compliance report dates*. [40 CFR 63.5180(g)(1)]
      1) The first semiannual reporting period begins 1 day after the end of the initial compliance period described in 40 CFR 63.5130(d) that applies to the affected source and ends 6 months later. [40 CFR 63.5180(g)(1)(i)]

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

2) The first semiannual compliance report shall cover the first semiannual reporting period and be postmarked or delivered no later than 30 days after the reporting period ends. [40 CFR 63.5180(g)(1)(ii)]
3) Each subsequent compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. [40 CFR 63.5180(g)(1)(iii)]
4) Each subsequent compliance report shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. [40 CFR 63.5180(g)(1)(iv)]

ii. *The semi-annual compliance report shall contain the following information:* [40 CFR 63.5180(g)(2)]
1) Company name and address. [40 CFR 63.5180(g)(2)(i)]
2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR 63.5180(g)(2)(ii)]
3) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation. [40 CFR 63.5180(g)(2)(iii)]
4) Identification of the compliance option or options specified in Table 1 to 40 CFR 63.5170 that the permittee used on each coating operation during the reporting period. If the permittee switched between compliance options during the reporting period, the permittee shall report the beginning dates the permittee used each option. [40 CFR 63.5180(g)(2)(iv)]
5) A statement that there were no deviations from the applicable emission limit in 40 CFR 63.5120 or the applicable operating limit(s) established according to 40 CFR 63.5121 during the reporting period. [40 CFR 63.5180(g)(2)(v)]

d. The permittee shall submit the initial notifications required in 40 CFR 63.9(b) and the notification of compliance status required in 40 CFR 63.9(h) and 63.5180(d) to the EPA via the CEDRI. The CEDRI interface can be accessed through the EPA's CDX (*https://cdx.epa.gov*). The Permittee must upload to CEDRI an electronic copy of each applicable notification in PDF. The applicable notification must be submitted by the deadline specified in 40 CFR 63, Subpart SSSS, regardless of the method in which the reports are submitted. If the permittee claim that some of the information required to be submitted via CEDRI is CBI shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the XML schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph. [40 CFR 63.5181(b)]

e. Beginning on March 25, 2021, or once the reporting template has been available on the CEDRI website for 1 year, whichever date is later, the permittee shall submit the

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

semiannual compliance report required in 40 CFR 63.5180(g) through (i), as applicable, to the EPA via the CEDRI. The CEDRI interface can be accessed through the EPA's CDX (*https://cdx.epa.gov*). The permittee must use the appropriate electronic template on the CEDRI website for 40 CFR 63, Subpart SSSS (*https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri*). The date on which the report templates become available will be listed on the CEDRI website. If the reporting form for the semiannual compliance report specific to 40 CFR 63, Subpart SSSS is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate addresses listed in 40 CFR 63.13. Once the form has been available in CEDRI for 1 year, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in 40 CFR 63, Subpart SSSS, regardless of the method in which the reports are submitted. If the permittee claim that some of the information required to be submitted via CEDRI is CBI shall submit a complete report generated using the appropriate form in CEDRI, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph. [40 CFR 63.5181(c)]

f. If the permittee is required to electronically submit a report through the CEDRI in the EPA's CDX, the permittee may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, the permittee must meet the requirements outlined in 40 CFR 63.5181(d)(1) through (7). [40 CFR 63.5181(d)]

g. If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the permittee may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, the permittee must meet the requirements outlined in 40 CFR 63.5181(e)(1) through (5). [40 CFR 63.5181(e)]

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

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

Group 18

Emission Unit 16 (EU 16) – PGL Finishing Operations

Emission Point 06 (EP 16-06) Pickle Galv Line Makeup Air Units

Description:
Heaters for the PGL and indoor coil storage area.
Maximum Heat Capacity: 37 MMBtu/hr
Fuel: Natural Gas
Construction Commenced: 2017
Controls: None

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

1. **Operating Limitations:**
The permittee shall only use natural gas as fuel in EP 16-06.

2. **Emission Limitations:**
The permittee shall not allow the emission units listed above 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. [401 KAR 63:020, Section 3]

Compliance Demonstration Method:
The Cabinet has determined that the source is in compliance with 401 KAR 63:020 based on the use of natural gas.

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:**
The permittee shall monitor the annual natural gas fuel usage rate. Refer to **SECTION F** for general monitoring requirements. [401 KAR 52:020, Section 10]

5. **Specific Recordkeeping Requirements:**
The permittee shall retain records of the annual natural gas fuel usage rate. Refer to **SECTION F** for general recordkeeping requirements. [401 KAR 52:020, Section 10]

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

7. **Specific Control Equipment Operating Conditions:**
None

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

Nucor Tubular Products

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

Group 19

Emission Unit 25 (EU 25) – Nucor Tubular Products

Emission Point #	Unit Name	Maximum Short-Term Capacity	Maximum Long-Term Capacity	Tank Capacity (gallons)	Control Device	Construction Commenced
Emission Unit 25 (EU 25) – Nucor Tubular Products						
25-01	NTP Coolant System	5.1 gal/hr	45,000 gal/yr	80,000 gallons	None	2021
25-02	NTP Rust Preventive	1.1 gal/hr	10,000 gal/yr	330 gallon tote	None	2021
Emission Point #	**Unit Name**	**Maximum Size**	**Paved or Unpaved**	**Total Vehicle Miles Traveled (miles/day)**	**Controls**	**Construction Commenced**
25-04	NTP Roads	0.21 miles	Paved	15.6	Wetting	2021

APPLICABLE REGULATIONS:

401 KAR 63:010, *Fugitive emissions*

1. **Operating Limitations:**
   a. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      i. 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 which earth or other material has been transported by trucking or earth moving equipment or erosion by water. [401 KAR 63:010, Section 3(1)(f)]

   b. If dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may, based on the cause, type, or amount of a fugitive emission, order that the building or equipment in which processing, handling, and storage are done be tightly closed and ventilated in a way that all air and gases and air or gasborne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air. [401 KAR 63:010, Section 3(3)]

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

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

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

2. Emission Limitations:

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

a. More than five (5) minutes of emission time during any sixty (60) minute observation period; or [401 KAR 63:010, Section 3(2)(a)]
b. More than twenty (20) minutes of emission time during any twenty-four (24) hour period. [401 KAR 63:010, Section 3(2)(b)]

Compliance Demonstration Method:

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

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

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

b. 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]

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

5. Specific Recordkeeping Requirements:

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

b. 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]

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

c. The permittee shall maintain a log of the following:
   i. Any Reference Method 22 performed and field records identified in Reference Method 22.
   ii. Any corrective action taken and the results.

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

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

Group 20

Emission Unit 25 (EU 25) – Nucor Tubular Products

Emission Point 03 (EP 25-03) NTP Emergency Generator

Description: A 4-stroke, rich-burn engine that has a displacement of less than 30 liters per cylinder.
Maximum Rating: 636 HP
Construction Commenced: 2021
Primary Fuel: Natural Gas
Control Equipment: None

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(eeee), 40 C.F.R. 60.4230 to 60.4248, Tables 1 to 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 to 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), *National Emissions 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, Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart JJJJ. 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 the stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine [40 CFR 60.4234].

   c. The permittee shall 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 any combination of the purposes specified in 40 CFR 60.4243(d)(2)(i) through (iii) 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

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

or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR 60.4243(d)(2)(i)]

iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 60.4243(d)(2). Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4243(d)(3)]

1) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all conditions in 40 CFR 60.4243(d)(3)(i) are met. [40 CFR 60.4243(d)(3)(i)]

2. Emission Limitations:

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

Maximum Engine Power	Emission Standards g/HP-hr (ppmvd at 15% O_2)		
	NO_x	CO	VOC
HP≥130	2.0 (160)	4.0 (540)	1.0 (86)

Compliance Demonstration Method:

The permittee shall demonstrate compliance according to one of the methods specified in 40 CFR 63.4243(b)(1) and (2). [40 CFR 60.4243(b)]

A. Purchasing an engine certified according to procedures specified in 40 CFR 60, Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4243(a). [40 CFR 60.4243(b)(1)]

B. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60, Subpart 60.4233(d) or (e) and according to the requirements specified in 40 CFR 60, Subpart 60.4244, as applicable, and according to 40 CFR 60.4243, paragraphs (b)(2)(i) and (ii). [40 CFR 60.4243(b)(2)]

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

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

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

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

b. The monthly hours of operation recorded through the non-resettable hour meter and the purpose of operation shall be monitored. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

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

b. The permittee shall keep records of the information in 40 CFR 63.4245(a)(1) through (4). [40 CFR 60.4245(a)]
   i. All notifications submitted to comply with 40 CFR 60, Subpart JJJJ and all documentation supporting any notification. [40 CFR 60.4245(a)(1)]
   ii. Maintenance conducted on the engine. [40 CFR 60.4245(a)(2)]
   iii. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 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)]

c. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. The monthly and annual fuel usage for the engine; and
   ii. The hours of operation for the engine, including the purpose of operation.

6. Specific Reporting Requirements:

a. If the emergency stationary SI ICE operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4243(d)(2)(ii) and (iii) or operates for the purposes specified in 40 CFR 60.4243(d)(3)(i), the permittee must submit an annual report according to the requirements in 40 CFR 60.4245(e)(1) through (3). [40 CFR 60.4245(e)]

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

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

Group 21

Emission Unit 25 (EU 25) – Nucor Tubular Products

EP 25-05 NTP Parts Cleaning Tanks (A & B)
Description: Unit A:Two 80 Gal parts washers serving the NTP processes.
Construction Commenced: 2021
Controls: None
Hours of Operation: 8760 hours/yr

Description: Unit B:One 150 Gal parts washer serving the NTP processes.
Construction Commenced: 2024
Controls: None
Hours of Operation: 8760 hours/yr

APPLICABLE REGULATIONS:
401 KAR 59:185, *New solvent metal cleaning equipment.*

1. **Operating Limitations:**
   a. Each cleaner shall be equipped with a cover. If the solvent volatility is greater than fifteen (15) mm Hg measured at 100°F or if the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with one (1) hand. [401 KAR 59:185, Section 4(1)(a)]

   b. The cleaner shall be equipped with a drainage facility so that solvent that drains off parts removed from the cleaner will return to the cleaner. If the solvent volatility is greater than thirty-two (32) mm Hg measured at 100°F then the drainage facility shall be internal so that parts are enclosed under the cover while draining. The drainage facility may be external if the cabinet determines that an internal type cannot fit into the cleaning system. [401 KAR 59:185, Section 4(1)(b)]

   c. A permanent, conspicuous label, summarizing the operating requirements specified in 401 KAR 59:185, Section (4)(2) shall be installed on or near the cleaner. [401 KAR 59:185, Section 4(1)(c)]

   d. If used, the solvent spray shall be a fluid stream, not a fine, atomized or shower type spray, and at a pressure that does not cause excessive splashing. [401 KAR 59:185, Section 4(1)(d)]

   e. If the solvent volatility is greater than thirty-two (32) mm Hg measured at 100°F or if the solvent is heated above 120°F, then one (1) of the following control devices shall be used: [401 KAR 59:185, Section 4(1)(e)]
      i. Freeboard height that gives a freeboard ratio greater than or equal to seven-tenths (0.7); [401 KAR 59:185, Section 4(1)(e)(1)]
      ii. Water cover, solvent shall be insoluble in and heavier than water; or [401 KAR 59:185, Section 4(1)(e)(2)]

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

iii. Other systems of equivalent control, such as a refrigerated chiller or carbon adsorption. [401 KAR 59:185, Section 4(1)(e)(3)]

f. Waste solvent shall not be disposed of or transferred to another party so that greater than twenty (20) percent by weight of the waste solvent can evaporate into the atmosphere. Waste solvent shall be stored only in covered containers. [401 KAR 59:185, Section 4(2)(a)]

g. The degreaser cover shall be closed if not handling parts in the cleaner. [401 KAR 59:185, Section 4(2)(b)]

h. Cleaned parts shall be drained for a minimum of fifteen (15) seconds, or until dripping ceases, whichever is longer. [401 KAR 59:185, Section 4(2)(c)]

i. The flushing of parts with a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. The solvent flow shall be directed downward to avoid turbulence at the air-solvent interface so as to prevent the solvent from splashing outside of the cold cleaner. [401 KAR 59:185, Section 4(2)(d)]

j. Work area fans shall be positioned so that air is not directed across the opening of the cold cleaner. [401 KAR 59:185, Section 4(2)(e)]

k. The use of an air-agitated solvent bath is prohibited. A pump-agitated solvent bath shall be operated so as to produce no observable splashing of the solvent against either the tank wall or the parts that are being cleaned. [401 KAR 59:185, Section 4(2)(f)]

l. The cold cleaner shall be free of all liquid leaks. Auxiliary cleaning equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible leaks, tears, or cracks. [401 KAR 59:185, Section 4(2)(g)]

m. Spills that occur during solvent transfer shall be cleaned immediately. Wipe rags, or other absorbent equipment and materials, used to clean the spill shall be stored in a covered container for disposal unless storage of these items is prohibited by fire protection authorities. [401 KAR 59:185, Section 4(2)(h)]

n. The operation of a cold cleaner using a solvent with a vapor pressure that exceeds one (1.0) mmHg (0.019 psi) measured at 20° C (68° F) is prohibited. [401 KAR 59:185, Section 4(3)(b)]

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.

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

4. Specific Monitoring Requirements:

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

b. The permittee shall monitor the storage and disposal of the waste solvent to ensure minimal loss due to evaporation. [401 KAR 52:020, Section 10]

c. The permittee shall monitor the amount of makeup solvent added in gallons on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

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

b. The permittee shall maintain records for a minimum of five (5) years that include the following information for each solvent purchase: [401 KAR 59:185, Section 4(4)(b)]

i. The name and address of the solvent supplier; [401 KAR 59:185, Section 4(4)(b)(1)]

ii. The date of the purchase; [401 KAR 59:185, Section 4(4)(b)(2)]

iii. The type of solvent; and [401 KAR 59:185, Section 4(4)(b)(3)]

iv. The vapor pressure of the solvent measured in mm Hg at 20° C (68°F). [401 KAR 59:185, Section 4(4)(b)(4)]

b. The permittee shall compile and maintain records of the total amount of solvent consumed in gallons on a monthly basis. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the SDS for the solvent used. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

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

7. Specific Control Equipment Operating Conditions:

The permittee shall operate and maintain the parts cleaning tanks such that they meet the requirements in 401 KAR 59:185 on a continuous basis. Refer to **SECTION E.**

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

Pickle Line (formerly Steel Technologies)

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

Group 22

Emission Unit 26 (EU 26) – Pickle Line (formerly Steel Technologies)

Emission Point #	Unit Name	Maximum Short-Term Capacity	Maximum Long-Term Capacity	Control Device	Construction Commenced
Emission Unit 26 (EU 26) – Pickle Line (formerly Steel Technologies)					
26-01	HCl Pickling Line & Acid Storage Tanks	68.5 tons/hr	599,972 tons/yr	Wet Scrubber #2	1995; Modified 2019
26-02	Scale Breaker	68.5 tons/hr	599,972 tons/yr	Baghouse	2006
26-17	Pickle Bay Vents	68.5 tons/hr	599,972 tons/yr	None	1995

Note: Short-term capacity is based on a 30-day average.

APPLICABLE REGULATIONS:

401 KAR 59:010, *New process operations*

401 KAR 63:002, Section 2(4)(pp), **40 C.F.R. 63.1155 to 63.1166, Tables 1 (Subpart CCC)**, *National Emission Standards for Hazardous Air Pollutants for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants*, applies to EP 26-01, & 26-17

40 CFR 64, *Compliance Assurance Monitoring* applies to EP 26-01 and 26-02 for PM.

1. **Operating Limitations:**
   a. *Hydrochloric Acid Storage Vessels.* For EP 26-01, the permittee shall provide and operate, except during loading and unloading of acid, a closed-vent system for each vessel. Loading and unloading shall be conducted either through enclosed lines or each point where the acid is exposed to the atmosphere shall be equipped with a local fume capture system, ventilated through an air pollution control device. [40 CFR 63.1159(b)]

   b. At all times, the permittee shall operate and maintain any affected source subject to the requirements of 40 CFR 63, Subpart CCC, including associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart CCC have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1159(c)]

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

2. **Emission Limitations:**
   a. For EPs 26-01 and 26-17: The permittee shall not cause or allow to be discharged into the atmosphere:

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

i. Any gases that contain HCl in a concentration in excess of 6 ppmv; or [40 CFR 63.1158(a)(1)(i)]
ii. HCl at a mass emission rate that corresponds to a collection efficiency of less than 99 percent. [40 CFR 63.1157(a)(1)(ii)]

Compliance Demonstration Method:
Initial and continuous compliance with the hydrochloric acid emission limitations for EPs 26-01 and 26-17 shall be determined by HCl emission testing in **3. Testing Requirements** and establishment and maintenance of scrubber operating parameters, refer to **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 (g)** and **5. Specific Recordkeeping Requirements (e).**

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

i. For process weight rates ≤ 0.50 ton/hr: 2.34 lb/hr
ii. For process weight rates >0.50 ton/hr up to 30.00 tons/hr: $E = 3.59 * P^{0.62}$
iii. For process weight rates > 30.00 tons/hr: $E = 17.3 * P^{0.16}$

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

Compliance Demonstration Method:
For the emission points listed above, compliance with the hourly limits in 401 KAR 59:010, Section 3(2) is assumed by operating according to good operation practices and maintaining the control device (if any) in accordance with manufacturer's specifications and the CAM plan.

3. Testing Requirements:

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

b. For EPs 26-01 and 26-17, the permittee shall conduct an initial performance test for each process or emission control device to determine and demonstrate compliance with the applicable emission limitation according to the requirements in 40 CFR 63.7 and 40 CFR 63.1161. Performance tests shall be conducted under such conditions as the Administrator

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

specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1161(a)]

c. During the performance test for each emission control device, the permittee using a wet scrubber to achieve compliance with 40 CFR 63, Subpart CCC shall establish site-specific operating parameter values for the minimum scrubber makeup water flow rate and, for scrubbers that operate with recirculation, the minimum recirculation water flow rate. During the emission test, each operating parameter must be monitored continuously and recorded with sufficient frequency to establish a representative average value for that parameter, but no less frequently than once every 15 minutes. The permittee shall determine the operating parameter monitoring values as the averages of the values recorded during any of the runs for which results are used to establish the emission concentration or collection efficiency. The permittee may conduct multiple performance tests to establish alternative compliant operating parameter values. Also, the permittee may reestablish compliant operating parameter values as part of any performance test that is conducted subsequent to the initial test or tests. [40 CFR 63.1161(b)]

d. The following test methods in Appendix A of 40 CFR Part 60 shall be used to determine compliance with 40 CFR 63.1158(a): [40 CFR 63.1161(d)(1)]
   i. Method 1, to determine the number and location of sampling points, with the exception that no traverse point shall be within one inch of the stack or duct wall; [40 CFR 63.1161(d)(1)(i)]
   ii. Method 2, to determine gas velocity and volumetric flow rate; [40 CFR 63.1161(d)(1)(ii)]
   iii. Method 3, to determine the molecular weight of the stack gas; [40 CFR 63.1161(d)(1)(iii)]
   iv. Method 4, to determine the moisture content of the stack gas; [40 CFR 63.1161(d)(1)(iv)]
   v. Method 26A, "Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources -- Isokinetic Method," to determine the HCl mass flows at the inlet and outlet of a control device or the concentration of HCl discharged to the atmosphere. If compliance with a collection efficiency standard is being demonstrated, inlet and outlet measurements shall be performed simultaneously. The minimum sampling time for each run shall be 60 minutes and the minimum sample volume 0.85 dry standard cubic meters (30 dry standard cubic feet). The concentrations of HCl shall be calculated for each run as follows: [40 CFR 63.1161(d)(1)(v)]

$$C_{HCl}\ (ppmv) = 0.659 C_{HCl}\ (mg/dscm)$$

Where:

$C_{HCl}\ (ppmv)$ = the concentration of HCl in ppmv; and

$C_{HCl}\ (mg/dscm)$ = the concentration in milligrams per dry standard cubic meter as calculated by the procedure given in Method 26A.

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

e. The permittee may use equivalent alternative measurement methods approved by the Administrator. [40 CFR 63.1161(d)(2)]

f. For the wet scrubber, the permittee shall conduct performance tests to measure the HCl mass flows at the control device inlet and outlet or the concentration of HCl exiting the control device according to the procedures described in 40 CFR 63.1161. Performance tests shall be conducted a minimum of once every 2 ½ years or twice per Title V permit term. If any performance test shows that the HCl emission limitation is being exceeded, then the permittee is in violation of the emission limit. [40 CFR 63.1162(a)(1)]

g. As required by 40 CFR 63.9(e), the permittee shall notify the Administrator in writing of the intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, to allow the Administrator to review and approve the site-specific test plan required under 40 CFR 63.7(c) and, if requested by the Administrator, to have an observer present during the test. [40 CFR 63.1163(d)]

4. Specific Monitoring Requirements:

a. For the wet scrubber, the permittee shall install, operate, and maintain systems for the measurement and recording of the scrubber makeup water flow rate and, if required, recirculation water flow rate. These flow rates must be monitored continuously and recorded at least once per shift while the scrubber is operating. Operation of the wet scrubber with excursions of scrubber makeup water flow rate and recirculation water flow rate less than the minimum values established during the performance test or tests will require initiation of corrective action as specified by the maintenance requirements in 40 CFR 63.1160(b)(2). [40 CFR 63.1162(a)(2)]

b. Failure to record each of the operating parameters listed in 40 CFR 63.1162(a)(2) is a violation of the monitoring requirements of 40 CFR 63, Subpart CCC. [40 CFR 63.1162(a)(4)]

c. Each monitoring device shall be certified by the manufacturer to be accurate to within 5 percent and shall be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year. [40 CFR 63.1162(a)(5)]

d. The permittee may develop and implement alternative monitoring requirements subject to approval by the Administrator. [40 CFR 63.1162(a)(6)]

e. The permittee shall inspect each hydrochloric acid storage vessel semiannually to determine that the closed-vent system and either the air pollution control device or the enclosed loading and unloading line, whichever is applicable, are installed and operating when required. [40 CFR 63.1162(c)]

f. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. Monthly hours of operation for each emission point;
   ii. Monthly process weight rate (tons) for each emission point;
   iii. For EP 26-02, daily pressure drop across the scale breaker baghouse.

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

iv. For Wet Scrubber #2, the pressure drop across the scrubber, at least once per shift.

g. During daylight hours, the permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using Reference Method 9. In lieu of determining the opacity using U.S. EPA Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

h. Upon detecting an excursion or exceedance (as defined in the appropriate CAM plan), the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [40 CFR 64.7(d)(1)]

i. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance (as defined in the CAM plan) will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. [40 CFR 64.7(d)(2)]

j. Refer to **Appendix A** for CAM requirements pursuant to 40 CFR 64 for EPs 26-01 and 26-02.

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

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

a. As required by 40 CFR 63.10(b)(2), the permittee shall maintain records for 5 years from the date of each record of: [40 CFR 63.1165(a)]
   i. The occurrence and duration of each malfunction of operation (*i.e.,* process equipment); [40 CFR 63.1165(a)(1)]
   ii. The occurrence and duration of each malfunction of the air pollution control equipment; [40 CFR 63.1165(a)(2)]
   iii. All maintenance performed on the air pollution control equipment; [40 CFR 63.1165(a)(3)]
   iv. Actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1159(c) and the dates of such actions (including corrective actions to restore

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

malfunctioning process and air pollution control equipment to its normal or usual manner of operation); [40 CFR 63.1165(a)(4)]

v. All required measurements needed to demonstrate compliance with 40 CFR 63, Subpart CCC and to support data that the source is required to report, including, but not limited to, performance test measurements (including initial and any subsequent performance tests) and measurements as may be necessary to determine the conditions of the initial test or subsequent tests; [40 CFR 63.1165(a)(5)]

vi. All results of initial or subsequent performance tests; [40 CFR 63.1165(a)(6)]

vii. If the permittee has been granted a waiver from recordkeeping or reporting requirements under 40 CFR 63.10(f), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements; [40 CFR 63.1165(a)(7)]

viii. If the permittee has been granted a waiver from the initial performance test under 40 CFR 63.7(h), a copy of the full request and the Administrator's approval or disapproval; [40 CFR 63.1165(a)(8)]

ix. All documentation supporting initial notifications and notifications of compliance status required by 40 CFR 63.9; [40 CFR 63.1165(a)(9)]

x. Records of any applicability determination, including supporting analyses; [40 CFR 63.1165(a)(10)]

b. *Subpart CCC records.* In addition to the general records required by 40 CFR 63.1165(a), the permittee shall maintain records for 5 years from the date of each record of: [40 CFR 63.1165(b)(1)]

i. Scrubber makeup water flow rate and recirculation water flow rate if a wet scrubber is used; [40 CFR 63.1165(b)(1)(i)]

ii. Calibration and manufacturer certification that monitoring devices are accurate to within 5 percent; and [40 CFR 63.1165(b)(1)(ii)]

iii. Each maintenance inspection and repair, replacement, or other corrective action. [40 CFR 63.1165(b)(1)(iii)]

c. The permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the source is no longer subject to the provisions of 40 CFR 63, Subpart CCC. In addition, if the operation and maintenance plan is revised, the permittee shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection by the Administrator for a period of 5 years after each revision to the plan. [40 CFR 63.1165(b)(3)]

d. General records and 40 CFR 63, Subpart CCC records for the most recent 2 years of operation must be maintained on site. Records for the previous 3 years may be maintained off site. [40 CFR 63.1165(c)]

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

i. Monthly hours of operation for each emission point;

ii. Monthly process weight rate (tons) for each emission point;

iii. For EP 26-02, daily pressure drop across the scale breaker baghouse;

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

iv. HCl usage rates and the appropriate MSDS;
v. The qualitative visual observations required by **4. Specific Monitoring Requirements (g),** 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.
vi. For Wet Scrubber #2, the pressure drop across the scrubber, at least once per shift.

f. For EPs 26-01 and 26-02, the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). [40 CFR 64.9(b)(1)]

g. For EPs 26-01 and 26-02, instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b)(2)]

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

6. Specific Reporting Requirements:

a. *Reporting results of performance tests.* Within 60 days after the date of completing each performance test (defined in 40 CFR 63.2), as required by 40 CFR 63, Subpart CCC, the permittee shall submit the results of the performance tests, including any associated fuel analyses, required by 40 CFR 63, Subpart CCC according to the requirements in 40 CFR 63.1164(a). [40 CFR 63.1164(a)]

b. *Reporting malfunctions.* The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded shall be stated in a semiannual report. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.1159(c), including actions taken to correct a malfunction. The report, to be certified by the owner or operator or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th day following the end of each calendar half. [40 CFR 63.1164(c)]

c. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring under CAM (Appendix A) did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges

or designated conditions, the permittee shall promptly notify the Division and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 CFR 64.7(e)]

d. For EPs 26-01 and 26-02, on and after the date specified in 40 CFR 64.7(a) by which the permittee must use monitoring that meets the requirements of 40 CFR 64, the permittee shall submit monitoring reports to the Division in accordance with **SECTION F**. [40 CFR 64.9(a)(1)]

e. For EPs 26-01 and 26-02, a report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under 40 CFR 70.6(a)(3)(iii) and the following information, as applicable: [40 CFR 64.9(a)(2)]
   i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; [40 CFR 64.9(a)(2)(i)]
   ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and [40 CFR 64.9(a)(2)(ii)]
   iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. [40 CFR 64.9(a)(2)(iii)]
   iv. The threshold for requiring the implementation of a QIP is an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a semiannual reporting period. [40 CFR 64.8(a)]

f. Refer to **Appendix A** for reporting requirements under 40 CFR 64 for EPs 26-01 and 26-02.

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

7. Specific Control Equipment Operating Conditions:

a. The permittee shall prepare an operation and maintenance plan for each emission control device used to comply with 40 CFR 63, Subpart CCC, to be implemented no later than startup. The plan is incorporated by reference into this Title V permit. All such plans must be consistent with good maintenance practices, and, for a scrubber emission control device, must at a minimum: [40 CFR 63.1160(b)(1)]
   i. Require monitoring and recording the pressure drop across the scrubber once per shift while the scrubber is operating in order to identify changes that may indicate a need for maintenance; [40 CFR 63.1160(b)(1)(i)]
   ii. Require the manufacturer's recommended maintenance at the recommended intervals on fresh solvent pumps, recirculating pumps, discharge pumps, and other liquid pumps,

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

in addition to exhaust system and scrubber fans and motors associated with those pumps and fans; [40 CFR 63.1160(b)(1)(ii)]

iii. Require cleaning of the scrubber internals and mist eliminators at intervals sufficient to prevent buildup of solids or other fouling; [40 CFR 63.1160(b)(1)(iii)]

iv. Require an inspection of each scrubber at intervals of no less than 3 months with: [40 CFR 63.1160(b)(1)(iv)]

1) Cleaning or replacement of any plugged spray nozzles or other liquid delivery devices; [40 CFR 63.1160(b)(1)(iv)(A)]
2) Repair or replacement of missing, misaligned, or damaged baffles, trays, or other internal components; [40 CFR 63.1160(b)(1)(iv)(B)]
3) Repair or replacement of droplet eliminator elements as needed; [40 CFR 63.1160(b)(1)(iv)(C)]
4) Repair or replacement of heat exchanger elements used to control the temperature of fluids entering or leaving the scrubber; and [40 CFR 63.1160(b)(1)(iv)(D)]
5) Adjustment of damper settings for consistency with the required air flow. [40 CFR 63.1160(b)(1)(iv)(E)]

v. If the scrubber is not equipped with a viewport or access hatch allowing visual inspection, alternate means of inspection approved by the Administrator may be used. [40 CFR 63.1160(b)(1)(v)]

vi. The permittee shall initiate procedures for corrective action within 1 working day of detection of an operating problem and complete all corrective actions as soon as practicable. Procedures to be initiated are the applicable actions that are specified in the maintenance plan. Failure to initiate or provide appropriate repair, replacement, or other corrective action is a violation of the maintenance requirement of 40 CFR 63 Subpart CCC. [40 CFR 63.1160(b)(1)(vi)]

vii. The permittee shall maintain a record of each inspection, including each item identified in 40 CFR 63.1160(b)(1)(iv), that is signed by the responsible maintenance official and that shows the date of each inspection, the problem identified, a description of the repair, replacement, or other corrective action taken, and the date of the repair, replacement, or other corrective action taken. [40 CFR 63.1160(b)(1)(vii)]

b. Refer to Appendix A for CAM requirements for the baghouse pursuant to 40 CFR 64.

c. Refer to **SECTION E.**

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

Group 23

Emission Unit 26 (EU 26) – Pickle Line (formerly Steel Technologies)

Emission Point #	Unit Name	Burner Maximum Capacity (MMBtu/hr)	Fuel Used	Control Device	Construction Commenced
Emission Unit 26 (EU 26) – Pickle Line (formerly Steel Technologies)					
26-04	Vapar Boiler	11.725 MMBtu/hr	Natural Gas	None	2022
26-05	Thermogenics Boiler	15.5 MMBtu/hr	Natural Gas	None	2004
26-06	Air Rotation Furnace #1	3.3 MMBtu/hr	Natural Gas	None	1995
26-07	Air Rotation Furnace #2	3.3 MMBtu/hr	Natural Gas	None	1995
26-08	Air Rotation Furnace #3	3.3 MMBtu/hr	Natural Gas	None	1995
26-09	Air Rotation Furnace #4	2.19 MMBtu/hr	Natural Gas	None	2018
26-10	Air Rotation Furnace #5	2.19 MMBtu/hr	Natural Gas	None	2018

APPLICABLE REGULATIONS:

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

401 KAR 60:005, Section 2(2)(d), 40 C.F.R. 60.40c to 60.48c (Subpart Dc), *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, applies to EP 26-04 and EP 26-05.

401 KAR 63:002, Section 2(4)(iiii), **40 C.F.R. 63.7480 to 63.7575, Tables 1 to 13 (Subpart DDDDD)**, *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*, applies to EP 26-04 and EP 26-05.

STATE-ORIGIN REQUIREMENTS:

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to EPs 26-06, 26-07, 26-08, 26-09, and 26-10

1. **Operating Limitations:**
   a. The permittee shall meet the requirements in 40 CFR 63.7500(a)(1) through (3), except as provided in 40 CFR 63.7500(b) through (e). The permittee shall meet these requirements at all times the affected unit is operating, except as provided in 40 CFR 63.7500(f). [40 CFR 63.7500(a)]
      i. The permittee shall meet each work practice standard in Table 3 to 40 CFR 63, Subpart DDDDD that applies to the boiler or process heater, for each boiler or process heater. [40 CFR 63.7500(a)(1)]
      ii. At all times, the permittee shall operate and maintain any affected source (as defined in 40 CFR 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Division that may include, but is not limited to, monitoring results, review of operation

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

and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.7500(a)(3)]

b. Boilers and process heaters with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in 40 CFR 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 15 to 40 CFR 63, Subpart DDDDD, or the operating limits in Table 4 to 40 CFR 63, Subpart DDDDD. [40 CFR 63.7500(e)]

c. As stated in 40 CFR 63.7500, the permittee must comply with the following applicable work practice standards: [40 CFR 63, Subpart DDDDD, Table 3]
   i. For EPs 26-04 and 26-05, the permittee must conduct a tune-up of the boiler or process heater annually as specified in 40 CFR 63.7540. Units in the Gas 1 subcategory will conduct this tune-up as a work practice for all regulated emissions under 40 CFR 63, Subpart DDDDD. [40 CFR 63, Subpart DDDDD, Table 3(3)]
   ii. For EP 26-05, the permittee must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and the compliance date specified in 40 CFR 63.7495 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in 40 CFR 63.7575: [40 CFR 63, Subpart DDDDD, Table 3(4)]
      1) A visual inspection of the boiler or process heater system. [40 CFR 63, Subpart DDDDD, Table 3(4)(a.)]
      2) An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints. [40 CFR 63, Subpart DDDDD, Table 3(4)(b.)]
      3) An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator. [40 CFR 63, Subpart DDDDD, Table 3(4)(c.)]
      4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage. [40 CFR 63, Subpart DDDDD, Table 3(4)(d.)]
      5) A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified. [40 CFR 63, Subpart DDDDD, Table 3(4)(e.)]
      6) A list of cost-effective energy conservation measures that are within the facility's control. [40 CFR 63, Subpart DDDDD, Table 3(4)(f.)]
      7) A list of the energy savings potential of the energy conservation measures identified. [40 CFR 63, Subpart DDDDD, Table 3(4)(g.)]

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

8) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR 63, Subpart DDDDD, Table 3(4)(h.)]

d. The permittee shall be in compliance with the work practice standards and operating limits in 40 CFR 63, Subpart DDDDD. These emission and operating limits apply at all times the affected unit is operating. [40 CFR 63.7505(a)]

e. The permittee shall demonstrate initial compliance with the applicable work practice standards in Table 3 to 40 CFR 63, Subpart DDDDD within the applicable annual schedule as specified in 40 CFR 63.7515(d) following the initial compliance date specified in 40 CFR 63.7495(a). Thereafter, the permittee is required to complete the applicable annual tune-up as specified in 40 CFR 63.7515(d). [40 CFR 63.7510(g)]

f. The permittee shall conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10). Each annual tune-up specified in 40 CFR 63.7540(a)(10) shall be no more than 13 months after the previous tune-up. For a new or reconstructed affected source (as defined in 40 CFR 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source. [40 CFR 63.7515(d)]

g. The permittee shall complete a subsequent tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi) and the schedule described in 40 CFR 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up. [40 CFR 63.7515(g)]

Compliance Demonstration Method:

A. The permittee shall demonstrate continuous compliance with the work practice standards in Table 3 to 40 CFR 63, Subpart DDDDD that apply according to the methods specified in Table 8 to 40 CFR 63, Subpart DDDDD and 40 CFR 63.7540(a)(1) through (19). [40 CFR 63.7540(a)]

B. For EPs 26-04 and 26-05, the permittee shall conduct an annual tune-up of each boiler or process heater to demonstrate continuous compliance as specified in 40 CFR 63.7540(a)(10)(i) through (vi). The permittee shall conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the process heater over the 12 months prior to the tune-up. [40 CFR 63.7540(a)(10)]
   1. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment; [40 CFR 63.7540(a)(10)(i)]
   2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; [40 CFR 63.7540(a)(10)(ii)]

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

3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). [40 CFR 63.7540(a)(10)(iii)]
4. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject; [40 CFR 63.7540(a)(10)(iv)]
5. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and [40 CFR 63.7540(a)(10)(v)]
6. Maintain on-site and submit, if requested by the Division, a report containing the information in 40 CFR 63.7540(a)(10)(vi)(A) through (C), [40 CFR 63.7540(a)(10)(vi)]
   I. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; [40 CFR 63.7540(a)(10)(vi)(A)]
   II. A description of any corrective actions taken as a part of the tune-up; and [40 CFR 63.7540(a)(10)(vi)(B)]
   III. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. [40 CFR 63.7540(a)(10)(vi)(C)]

C. If the unit is not operating on the required date for tune-up, the tune-up shall be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13)]

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

2. Emission Limitations:

a. The permittee shall not cause emissions of particulate matter in excess of: [401 KAR 59:015, Section 4(1)]

Emission Point	Affected Facility	PM Emission Limit (lb/MMBtu)
26-04	Vapar Boiler	0.31
26-05	Thermogenics Boiler	0.41
26-06	Air Rotation Furnace #1	0.47
26-07	Air Rotation Furnace #2	0.47
26-08	Air Rotation Furnace #3	0.47
26-09	Air Rotation Furnace #4	0.33
26-10	Air Rotation Furnace #5	0.33

b. The permittee shall not cause emissions of particulate matter in excess of twenty (20) percent opacity, except: [401 KAR 59:015, Section 4(2)]

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

i. A maximum of twenty-seven (27) percent opacity shall be allowed for one (1) six (6) minute period in any sixty (60) consecutive minutes. [401 KAR 59:015, Section 4(2)(a)]

c. The permittee shall not cause emissions of gases that contain sulfur dioxide in excess of: [401 KAR 59:015, Section 5(1)(c)]

Emission Point	Affected Facility	SO_2 Emission Limit (lb/MMBtu)
26-04	Vapar Boiler	1.1
26-05	Thermogenics Boiler	1.7
26-06	Air Rotation Furnace #1	2.2
26-07	Air Rotation Furnace #2	2.2
26-08	Air Rotation Furnace #3	2.2
26-09	Air Rotation Furnace #4	1.2
26-10	Air Rotation Furnace #5	1.2

Compliance Demonstration Method:
These units are assumed to be in compliance with **2. Emission Limitations (a) – (c)** when combusting natural gas.

d. For EPs 26-06, 26-07, 26-08, 26-09, and 26-10, the permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals, and plants [401 KAR 63:020, Section 3].

Compliance Demonstration Method
The Cabinet has determined that the source is in compliance with 401 KAR 63:020 based on the use of natural gas as fuel.

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

4. Specific Monitoring Requirements:
a. The permittee shall monitor the amount of natural gas (MMscf) combusted, on a monthly basis. [401 KAR 52:020, Section 10]

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

5. Specific Recordkeeping Requirements:
a. The permittee shall maintain records of the amount of natural gas (MMscf) combusted during each calendar month. [40 CFR 60.48c(g) and 401 KAR 52:020, Section 10]

b. The permittee shall keep records according to 40 CFR 63.7555(a)(1) and (2). [40 CFR 63.7555(a)]

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

i. A copy of each notification and report that the permittee submitted to comply with 40 CFR 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]

ii. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). [40 CFR 63.7555(a)(2)]

c. The records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). [40 CFR 63.7560(a)]

d. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.7560(b)]

e. The permittee must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3 years. [40 CFR 63.7560(c)]

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

6. <u>Specific Reporting Requirements</u>:

a. The permittee shall submit notification of the date of construction and actual startup, as provided by 40 CFR 60.7. The notification shall include: The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility. [40 CFR 60.48c(a)(1)]

b. The permittee shall include with the Notification of Compliance Status a signed certification that either the energy assessment was completed according to Table 3 to 40 CFR 63, Subpart DDDDD, and that the assessment is an accurate depiction of the facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended. [40 CFR 63.7530(e)]

c. The permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.7545(e). [40 CFR 63.7530(f)]

d. The Notification of Compliance Status must only contain the information specified in 40 CFR 63.7545(e)(1) and (8) and must be submitted within 60 days of the compliance date specified at 40 CFR 63.7495(b). [40 CFR 63.7545(e)]

i. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls

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

used on the unit to comply with 40 CFR 63, Subpart DDDDD, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by the permittee or the EPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3, and justification for the selection of fuel(s) burned during the compliance demonstration. [40 CFR 63.7545(e)(1)]

ii. A signed certification that the permittee has met all applicable emission limits and work practice standards. [40 CFR 63.7545(e)(6)]

iii. If the permittee had a deviation from any emission limit, work practice standard, or operating limit, the permittee must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report. [40 CFR 63.7545(e)(7)]

iv. In addition to the information required in 40 CFR 63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official: [40 CFR 63.7545(e)(8)]

1) "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)." [40 CFR 63.7545(e)(8)(i)]
2) "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)." [40 CFR 63.7545(e)(8)(ii)]

e. The permittee must submit each report in Table 9 to 40 CFR 63, Subpart DDDDD that applies. [40 CFR 63.7550(a)]

f. A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in 40 CFR 63, Subpart DDDDD. [40 CFR 63.7550(c)]

a. If the facility is subject to the requirements of a tune up the permittee must submit a compliance report with the information in 40 CFR 63.7550(c)(5)(i) through (iii), (xiv) and (xvii). [40 CFR 63.7550(c)(1)]
b. Company and Facility name and address. [40 CFR 63.7550(c)(5)(i)]
c. Process unit information, emissions limitations, and operating parameter limitations. [40 CFR 63.7550(c)(5)(ii)]
d. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.7550(c)(5)(iii)]
e. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual or 5-year tune-up according to 40 CFR 63.7540(a)(10) or (12) respectively. Include the date of the most recent burner inspection if it was not done annually or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. [40 CFR 63.7550(c)(5)(xiv)]
f. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [40 CFR 63.7550(c)(5)(xvii)]

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

g. The permittee must submit all reports required by Table 9 of 40 CFR 63, Subpart DDDDD electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) [40 CFR 63.7550(h)(3)]

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

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

Group 24

Emission Unit 26 (EU 26) – Pickle Line (formerly Steel Technologies)

Emission Point EP 26-11 Emergency Engine
Description: Total displacement 10 liters, numbers of cylinders (6).
Model: Cummins Mo. # 200DFAA
Maximum Rating: 380 HP
Construction Commenced: 1995
Primary Fuel: Diesel
Control Equipment: None

APPLICABLE REGULATIONS:

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

1. **Operating Limitations:**
   a. The permittee must comply with the emission limitations and other requirements in Table 2c to 40 CFR 63, Subpart ZZZZ which apply. [40 CFR 63.6602]

   b. For emergency stationary CI RICE, that uses diesel fuel and operates for the purposes specified in 40 CFR 63.6640(f)(4)(ii), the permittee must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel. [40 CFR 63.6604(b)]

   c. The permittee must be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR 63, Subpart ZZZZ that apply at all times. [40 CFR 63.6605(a)]

   d. At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

   e. The permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)]

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

f. The permittee shall install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

g. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in 40 CFR 63, Subpart ZZZZ, Table 2c apply. [40 CFR 63.6625(h)]

h. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c to 40 CFR 63, Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to 40 CFR 63, Subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

i. The permittee shall operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (3). In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and shall meet all requirements for non-emergency engines. [40 CFR 63.6640(f)]
   i. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
   ii. The permittee may operate the emergency stationary RICE for any combination of the purposes specified in 40 CFR 63.6640(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 63.6640(f)(2). [40 CFR 63.6640(f)(2)]
      1) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness

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

testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(2)(i)]

iii. Emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3)]

j. The permittee shall meet the following requirements, except during periods of startup: [40 CFR 63, Subpart ZZZZ, Table 2c(1)]
   i. Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63, Subpart ZZZZ, Table 2c(1)(a)]
      1) Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Table 2c of 40 CFR 63, Subpart ZZZZ. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 2]
   ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; [40 CFR 63, Subpart ZZZZ, Table 2c(1)(b)]
   iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63, Subpart ZZZZ, Table 2c(1)(c)]

k. During periods of startup, the permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63, Subpart ZZZZ, Table 2c(1.)]

l. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of 40 CFR 63, Subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 1]

m. Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. [40 CFR 63, Subpart ZZZZ, Table 2c, Footnote 3]

Compliance Demonstration Method:
The permittee must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Table 2c to 40 CFR 63, Subpart ZZZZ that

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

applies according to methods specified in Table 6 to 40 CFR 63, Subpart ZZZZ. [40 CFR 63.6640(a)]

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 Division.

4. Specific Monitoring Requirements:

a. The permittee shall monitor the monthly amount of diesel used. [401 KAR 52:020, Section 10]

b. Refer to **SECTION F**.

5. Specific Recordkeeping Requirements:

a. The permittee must keep the records described in 40 CFR 63.6655(a)(1) through (a)(5), (b)(1) through (b)(3) and (c). [40 CFR 63.6655(a)]
   i. A copy of each notification and report that is submitted to comply with 40 CFR 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]
   ii. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]
   iii. Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(4)]
   iv. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]

b. The permittee must keep the records required in Table 6 of 40 CFR 63, Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies. [40 CFR 63.6655(d)]

c. The permittee shall maintain records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE, including any after-treatment control device, according to the maintenance plan. [40 CFR 63.6655(e)(2)].

d. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the

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

purposes specified in 40 CFR 63.6640(f)(2)(ii), the permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f)]

e. The records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a)]

f. As specified in 40 CFR 63.10(b)(1), the permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.6660(b)]

g. The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(c)]

h. The permittee shall maintain records of monthly diesel usage. [401 KAR 52:020, Section 10]

i. Refer to **SECTION F**.

6. Specific Reporting Requirements:

a. The permittee shall report each instance in which the permittee did not meet an applicable emission limitation or operating limitation in Table 2c of 40 CFR 63, Subpart ZZZZ that applies. These instances are deviations from the emission and operating limitations in 40 CFR 63, Subpart ZZZZ. These deviations shall be reported according to the requirements in 40 CFR 63.6650. If the catalyst is changed, the permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the permittee reestablishes the values of the operating parameters, the permittee shall also conduct a performance test to demonstrate that the required emission limitations applicable to this engine are being met. [40 CFR 63.6640(b)]

b. The permittee shall report each instance in which the permittee did not meet the requirements of Table 8 to 40 CFR 63, Subpart ZZZZ, that apply. [40 CFR 63.6640(e)]

c. The permittee shall submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to the permittee by the dates specified. [40 CFR 63.6645(a)]

d. The permittee shall submit each report in Table 7 to 40 CFR 63, Subpart ZZZZ, that applies. [40 CFR 63.6650(a)]

e. Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report by the date in Table 7 of 40 CFR 63, Subpart ZZZZ and according to the requirements in 40 CFR 63.6650(b)(1) through (b)(9). [40 CFR 63.6650(b)]

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

f. The Compliance report must contain the information in 40 CFR 6650(c)(1) through (6). [40 CFR 63.6650(c)]
   i. Company name and address. [40 CFR 63.6650(c)(1)]
   ii. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR 63.6650(c)(2)]
   iii. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.6650(c)(3)]
   iv. If the permittee had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.6605(b), including actions taken to correct a malfunction. [40 CFR 63.6650(c)(4)]
   v. If there are no deviations from any emission or operating limitations that apply, a statement that there were no deviations from the emission or operating limitations during the reporting period. [40 CFR 63.6650(c)(5)]

g. For each deviation from an emission or operating limitation that occurs for a stationary RICE where the permittee is not using a CMS to comply with the emission or operating limitations in 40 CFR 63, Subpart ZZZZ, the Compliance report must contain the information in 40 CFR 63.6650(c)(1) through (4) and the information in 40 CFR 63.6650(d)(1) and (2). [40 CFR 63.6650(d)]
   i. The total operating time of the stationary RICE at which the deviation occurred during the reporting period. [40 CFR 63.6650(d)(1)]
   ii. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [40 CFR 63.6650(d)(2)]

h. The permittee must report all deviations as defined in 40 CFR 63, Subpart ZZZZ in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of 40 CFR 63, Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR 63, Subpart ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the Division. [40 CFR 63.6650(f)]

i. If any of the emergency stationary RICE operate for the purposes specified in 40 CFR 63.6640(f)(2)(ii), the permittee shall submit an annual report according to the requirements in 40 CFR 63.6650(h)(1) through (3). [40 CFR 63.6650(h)]

j. Refer to **SECTION F**.

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

Group 25

Emission Unit 26 (EU 26) – Pickle Line (formerly Steel Technologies)

Emission Point EP 26-12 Pickle Line Paved Roads
Description:
Vehicular traffic on plant roads
Size/Rated Capacity: 16,060VMT/yr
Controls: Sweeping and water spray
Construction Commenced: 1994

APPLICABLE REGULATIONS:
401 KAR 63:010, *Fugitive emissions*

1. **Operating Limitations:**
   a. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored, a building or its appurtenances to be constructed, altered, repaired, or demolished, or a road to be used without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      i. 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)]
      ii. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
      iii. The maintenance of paved roadways in a clean condition; [401 KAR 63:010, Section 3(1)(e)]
      iv. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water. [401 KAR 63:010, Section 3(1)(f)]

   b. 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)]

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

   Compliance Demonstration Method:
   Compliance with fugitive emissions requirements shall be demonstrated by taking reasonable precautions, including the use of water and chemical suppressants to minimize PM emission generation due to vehicle movement. Refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements.**

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

2. Emission Limitations:

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

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

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

Compliance Demonstration Method:

Refer to **4. Specific Monitoring Requirements (c)** and **5. Specific Recordkeeping Requirements (b).**

3. Testing Requirements:

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

4. Specific Monitoring Requirements:

a. The permittee shall perform daily inspections of trucks leaving the property for proper coverage of materials likely to become airborne and perform daily observations of paved/unpaved streets and roadways, and take corrective actions as necessary. [401 KAR 52:020, Section 10]

b. 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]

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

d. Refer to **SECTION F.**

5. Specific Recordkeeping Requirements:

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

b. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]

   i. Any Reference Method 22 observations performed and field records identified in Reference Method 22.

   ii. Any corrective action taken and the results.

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

c. Refer to **SECTION F.**

6. Specific Reporting Requirements:
Refer to **SECTION F.**

7. Specific Control Equipment Operating Conditions:
The permittee shall employ a combination of sweeping and watering to control fugitive dust emissions. Refer to **SECTION E.** [401 KAR 52:020, Section 10]

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

Group 26

Emission Unit 26 (EU 26) – Pickle Line (formerly Steel Technologies)

Emission Point EP 26-13 Rust Preventive Tank
Description:
Rust preventive storage tank
Tank Capacity: 6,000 gallons
Maximum Throughput: 255,753 gal/yr
Construction Commenced: 1994
Controls: None

APPLICABLE REGULATIONS:
401 KAR 59:050, *New storage vessels for petroleum liquids*

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

1. **Operating Limitations:**
   a. There shall be no visible holes, tears, or other opening in the seal, any seal fabric, shoe, or seal envelope. [401 KAR 59:050, Section 4(1)]

   b. All openings, except stub drains, automatic bleeder vents, rim space vents, and leg sleeves, shall be equipped with covers, lids, or seals such that: [401 KAR 59:050, Section 4(2)]
      i. The cover, lid, or seal is in the closed position at all times (i.e., no visible gap). [401 KAR 59:050, Section 4(2)(a)]
      ii. Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and [401 KAR 59:050, Section 4(2)(b)]
      iii. Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [401 KAR 59:050, Section 4(2)(c)]

2. **Emission Limitations:**
   The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals, and plants [401 KAR 63:020, Section 3].

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

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

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

4. Specific Monitoring Requirements:

a. The permittee shall monitor the annual throughput for the emission point. [401 KAR 52:020, Section 10]

b. Refer to **SECTION F.**

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the annual throughput for the emission point. [401 KAR 52:020, Section 10]

b. Refer to **SECTION F.**

6. Specific Reporting Requirements:

Refer to **SECTION F.**

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

	Description	Generally Applicable Regulation
1.	Existing Laboratory HCl dip tank	None
2.	Existing coil identification system	None
3.	Melt Shop portable arc welders	401 KAR 63:010 401 KAR 63:020
4.	Melt Shop cutting torches	401 KAR 63:010 401 KAR 63:020
5.	Melt Shop portable plasma cutter	401 KAR 63:010
6.	Melt Shop shell/ladle/tundish maintenance and repair	401 KAR 63:010
7.	Tundish spray stations	401 KAR 63:010
8.	Rolling mill plasma cutter at coiler	401 KAR 63:010
9.	Caster area cutting torch drops	401 KAR 63:010 401 KAR 63:020
10.	Cutting Torch to Ignite Oxygen Lance	401 KAR 63:010 401 KAR 63:020
11.	Steel scrap yard torch cutting, including railcar torch cutting	401 KAR 63:010 401 KAR 63:020
12.	Cutting torch for liquid steel break out cleanup	401 KAR 63:010 401 KAR 63:020
13.	Cleanup and cutting of dummy bar at caster	401 KAR 63:010 401 KAR 63:020
14.	Caster Area Mold Powder Pouring into Spray Chamber	401 KAR 63:010
15.	Reheat Furnace Area maintenance Welding Area	401 KAR 63:010 401 KAR 63:020
16.	Reheat Furnace Scale Handling	401 KAR 63:010
17.	Rolling Mill Steam Cleaners	401 KAR 63:010
18.	Rolling Mill Cutting Torches	401 KAR 63:010 401 KAR 63:020

SECTION C - INSIGNIFICANT ACTIVITIES

	Description	Generally Applicable Regulatio
19.	Rolling Mill Maintenance Welding Area	401 KAR 63:010 401 KAR 63:020
20.	Rolling Mill High Pressure Descale Operation	401 KAR 63:010
21.	Roll Grinding (3)	401 KAR 63:010
22.	Scale Pits	401 KAR 63:010
23.	Rolling Mill Shear Station	401 KAR 63:010
24.	Portable Welders	401 KAR 63:010 401 KAR 63:020
25.	Baghouse Portable Cutting Torches	401 KAR 63:010 401 KAR 63:020
26.	Pump House Sludge Filter Press	401 KAR 63:010
27.	Scrap Truck Dump	401 KAR 63:010
28.	Scrap Bucket Charging	401 KAR 63:010
29.	Alloy Handling	401 KAR 63:010
30.	Scrap Storage and Handling	401 KAR 63:010
31.	Outside Maintenance Equipment	401 KAR 63:010
32.	Miscellaneous Heaters (each natural Gas-fired and < 1 MMBtu/hr)	401 KAR 63:010 401 KAR 63:020
33.	Various Pieces of Mobile Equipment	401 KAR 63:010
34.	Storage Tanks with diesel fuel oils Numbers 2-D or 4-D < 10,567 gallons	None
36.	Parking lots	401 KAR 63:010
37.	Miscellaneous kerosene space heaters (seasonal use)	401 KAR 63:020
38.	Three locomotives (two existing, one new)	None
39.	Emergency electric generators and emergency fire fighting water pump engines (except boilers) rated ≤ 500 HP that use only gasoline, natural gas, LP gas, or distillate oils that are operated < 500 hours/year (as verified by appropriate records), and meet the definition of non-road engines as defined in 40 CFR 1068.30.	None
40.	Wastewater treatment facilities used for domestic sewage only, excluding combustion or incineration equipment	None

SECTION C - INSIGNIFICANT ACTIVITIES

	Description	Generally Applicable Regulation
41.	Laboratory fume hoods and vents used exclusively for chemical or physical analysis or for bench-scale production R & D facilities	None
42.	Indirect heat exchangers or water heaters rated ≤ 1 MMBtu/hr actual heat input that use #2 fuel oil, wood, natural gas, LP gas, or refinery fuel gas.	401 KAR 63:020
44.	Scrap cutting from slag pot	401 KAR 63:010 401 KAR 63:020
45.	Duct maintenance and repair	401 KAR 63:010
46.	Carbon Delivery System	401 KAR 59:010
47.	Asphalt paving of approximately 1000 feet of an existing unpaved road	401 KAR 63:010
48.	Painting of the DRI Conveyor	401 KAR 63:010
49.	Zinc Pot (EP 16-02)	401 KAR 59:010
50.	Dip Water Cooling Unit Steam Vent	None
51.	Electrostatic Oiler (in a closed cabinet and not exhausted)	None
52.	Coil Tagger (printing characters on coils)	None
53.	Skin Pass Mill (EP 16-03)	401 KAR 59:010
54.	DRI Conveyor #1 Emergency Bypass Chute	401 KAR 63:010
55.	DRI Silo #1 Emergency Bypass Chute	401 KAR 63:010
56.	DRI Silo #2 Emergency Bypass Chute	401 KAR 63:010
57.	Lime Bagging Station (EP 11-10)	401 KAR 63:010
	Nucor Tubular Products	
58.	NTP Cooling Tower 1 (EP 25-06)	401 KAR 59:010
59.	NTP Cooling Tower 2 (EP 25-07)	401 KAR 59:010
60.	NTP Remetalization Unit #1 (EP 25-08)	401 KAR 59:010
61.	NTP Welder – Small Mill (EP 25-09)	401 KAR 63:010 401 KAR 63:020
62.	NTP Welder – Medium Mill (EP 25-10)	401 KAR 63:010 401 KAR 63:020
63.	NTP Building Heaters (each<1 MMBtu/hr) (EP 25-11)	401 KAR 63:010
64.	NTP Remetalization Unit #2 (EP 25-12)	401 KAR 59:010

SECTION C - INSIGNIFICANT ACTIVITIES

	Description	Generally Applicable Regulation
	Pickle Line (formerly Steel Technologies)	
65.	Pickle Line Electrostatic Oiler (EP 26-14)	401 KAR 59:010
66.	Three (3) Coil Slitters (EP 26-15)	401 KAR 59:010
67.	Space Heaters (NG direct fired) (EP 26-16)	401 KAR 63:020

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. PM, PM_{10}, $PM_{2.5}$, CO, NO_X, SO_2, VOC, Fluoride, HCl, GHG, Opacity, and Pb emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. The permittee shall only use natural gas as fuel in combustion emission units, except for the emergency generators that are permitted to use diesel fuel. As specified in the operating limitations herein, applicable combustion units shall be equipped with low NO_x burners. [401 KAR 51:017]

4. Except as otherwise specified herein, hourly 401 KAR 51:017 (BACT) emission limitations shall be averaged over three heats (melt cycles) during performance testing unless a corresponding compliance demonstration requires a longer averaging period.

5. Compliance with annual limitations established herein shall be based upon a 12-month rolling total, calculated monthly.

6. The permittee shall take reasonable precautions to prevent particulate fugitive dust emissions from becoming airborne. The permittee shall not cause or permit the discharge of 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)]

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

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

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. Data from the continuous emission and opacity monitors shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

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

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

9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.

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

e. 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
Florence Regional Office
8020 Veterans Memorial Drive
Florence, KY 41042

U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta GA 30303-8960

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

SECTION G - GENERAL 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) 2].

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) 4.].

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) 1.].

SECTION G - GENERAL PROVISIONS (CONTINUED)

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

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

2. **Permit Expiration and Reapplication Requirements**

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

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

3. **Permit Revisions**

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

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

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

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, Rolling Mill Inspection Line Plasma Cutter (EP 02-07), Air Separation Plant Cooling Tower (EP 03-13), DCW Auxiliary Cooling Tower (EP 03-14), New Pumphouse (XB13) Emergency Generator #1 (EP 08-05), New Emergency Fire Pump #2 (EP 09-06), Radio Tower Emergency Generator (EP 09-07), in accordance with the terms and conditions of the proposed permit V-20-015.

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, NTP Coolant System (EP 25-01), NTP Rust Preventive (EP 25-02), NTP Emergency Generator (EP 25-03), NTP Roads (EP 25-04), NTP Parts Cleaning Tanks (EP 25-05), NTP Cooling Towers #1 & #2 (EP 25-06 & EP 25-07), in accordance with the terms and conditions of the proposed permit V-20-15 R1.

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, , Caster B Emergency Generator (EP 08-07), Scalehouse Emergency Generator (EP 09-08), Truck Staging Emergency Generator (EP 09-09) in accordance with the terms and conditions of the proposed permit V-20-15 R2.

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, two direct reduced iron conveyor bin vents (EP 13-12 & EP 13-13), a parts washer (EP 25-05, Unit B), in accordance with the terms and conditions of the proposed permit V-20-15 R3.

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 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.

SECTION G - GENERAL PROVISIONS (CONTINUED)

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

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

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

5. **Testing Requirements**

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

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. **Acid Rain Program Requirements**

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

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

7. **Emergency Provisions**

a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   (1) An emergency occurred and the permittee can identify the cause of the emergency;
   (2) The permitted facility was at the time being properly operated;
   (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
   (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.1-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an 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.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(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 82.166
(5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

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

9. **Risk Management Provisions**

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

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

SECTION H - ALTERNATE OPERATING SCENARIOS

The alternate operating scenarios set forth below have been approved by the Division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

ALTERNATE OPERATING SCENARIO 1

The following operating scenario authorizes the operation of a batch concrete plant on site to provide concrete for construction activities for permit V-14-013 R5 and V-20-015. The batch concrete plant will be used during construction activities and will be removed from the Nucor property once foundation activities are complete.

Emission Unit 24 – Batch Concrete Plant (EU 24)

Emission Point 24-01A Cement Silo

Description:

Construction Date: 2019
Maximum Throughput: 120 yd^3/hr
Control Device: Bin Vent Filter

Emission Point 24-01B Fly Ash Silo

Description:

Construction Date: 2019
Maximum Throughput: 120 yd^3/hr
Control Device: Bin Vent Filter

Emission Point 24-02 Aggregate Handling

Description:

Construction Date: 2019
Maximum Throughput: 120 yd^3/hr
Control Device: Water Spray

Emission Point 24-03 Sand Handling

Description:

Construction Date: 2019
Maximum Throughput: 120 yd^3/hr
Control Device: Water Spray

Emission Point 24-04 Weigh Hopper Loading

Description:

Construction Date: 2019
Maximum Throughput: 120 yd^3/hr
Control Device: Water Spray

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

Emission Point 24-05 Truck Loadout

Description:
Construction Date: 2019
Maximum Throughput: 120 yd^3/hr
Control Device: Dust Collector

APPLICABLE REGULATIONS:
401 KAR 51:017, *Prevention of significant deterioration of air quality*
401 KAR 59:010, *New process operations*
401 KAR 63:010, *Fugitive emissions*

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

1. **Operating Limitations:**
   a. For EP 24-01A, 24-01B, Cement and fly ash shall be transferred pneumatically to the storage silo. The pneumatic system shall be adequately enclosed so as to eliminate fugitive dust emissions. [401 KAR 51:017]

   b. For EP 24-02 through 24-04:
      i. The aggregate and sand to be loaded into the weigh-hopper and the conveyor shall have a moisture content sufficient so as to minimize or eliminate at all times visible emissions of fugitive dust. Water spraying devices shall be utilized to control fugitive dusts. [401 KAR 51:017]
      ii. No person shall 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. Such reasonable precautions shall include, when applicable, but not be limited to the following: [401 KAR 63:010, Section 3(1)]
         1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
         2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
         3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations.
         4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
         5) The maintenance of paved roadways in a clean condition;
         6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking, earth moving equipment, or erosion by water.

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

c. The permittee shall not produce more than 60,000 cubic yards of concrete in any consecutive 12-month period. [401 KAR 51:017]

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

b. ***Particulate Emission Standard:*** The permittee shall not discharge or cause to be discharged into the atmosphere any gases which exceed the following limits:

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

1) For process weight rates ≤ 0.50 ton/hr : 2.34 lb/hr
2) For process weight rates > 0.50 ton/hr up to 30.00 tons/hr: $E = 3.59 * P^{0.62}$
3) For process weight rates > 30.00 tons/hr: $E = 17.3 * P^{0.16}$

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

ii. The permittee shall not cause emissions of PM, PM_{10}, and $PM_{2.5}$ that equal or exceed the limits in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for PM (filterable)	BACT for PM_{10}	BACT for $PM_{2.5}$
24-01A	Cement Silo	0.03 lb/hr; 0.01 ton/yr	0.01 lb/hr; 0.003 ton/yr	0.01 lb/hr; 0.003 ton/yr
24-01B	Fly Ash Silo	0.05 lb/hr; 0.01 ton/yr	0.03 lb/hr; 0.01 ton/yr	0.03 lb/hr; 0.01 ton/yr
24-02, 24-03, 24-04, & 24-05	Material Handling (EPs combined)	1.80 lb/hr; 0.45 ton/yr	0.72 lb/hr; 0.18 ton/yr	0.11 lb/hr; 0.03 ton/yr

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the emission standards listed above as follows:

A. Compliance with **2. Emission Limitations (d)(i)** is assumed when complying with the emission limitations in **2. Emission Limitations (d)(ii)**.

B. Compliance with **2. Emission Limitations (b)(ii)** will be demonstrated by meeting the requirements in **1. Operating Conditions**, **4. Specific Monitoring Requirements (b),** **5. Specific Recordkeeping Requirements (b)** through **(d),** and **7. Specific Control Equipment Operating Conditions.**

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

c. ***Lead (Pb) Emission Standard:*** The permittee shall not cause emissions of Lead (Pb) that equal or exceed the limit in the following table: [401 KAR 51:017]

Emission Point	Description	BACT for Lead (Pb)
24-01A	Cement Silo	3.22×10^{-7} lb/hr; 8.06×10^{-8} ton/yr
24-01B	Fly Ash Silo	2.71×10^{-6} lb/hr; 6.79×10^{-7} ton/yr

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the emission standards listed above by meeting the requirements in **1. Operating Conditions**, **4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements (b)** through **(d),** and **7. Specific Control Equipment Operating Conditions.**

d. ***Fugitive Emission Standard***: [401 KAR 63:010, Section 3]
   i. 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:
      1) More than five (5) minutes of emission time during any sixty (60) minute observation period; or
      2) More than twenty (20) minutes of emission time during any twenty-four (24) hour period.
   ii. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

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

e. The permittee shall not allow the emission units listed above 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. [401 KAR 63:020, Section 3]

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

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

4. Specific Monitoring Requirements:
a. During daylight hours, the permittee shall perform a qualitative visual observation of the opacity of emissions from the stack no less frequently than once every week while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), then the permittee shall determine the opacity

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using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

b. The permittee shall perform monthly operational status inspections of the affected facilities and control equipment. The observations shall include but not be limited to, the physical appearance of all equipment. [401 KAR 52:020, Section 10]

c. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The volume and/or weight of sand, limestone, or other aggregate delivered and processed by the concrete batch plant;
   ii. The volume and weight of cement and fly ash delivered to the storage silo and processed;
   iii. The total cumulative hours of operation of this batch plant and associated dust control system;
   iv. Monthly and 12-month rolling production of concrete in cubic yards;

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

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the dates and times of each qualitative visible emission observation and U.S. EPA Reference Method 9 observation performed as required by **4. Specific Monitoring Requirements (a)**, whether any emissions were observed (yes/no), initials of observer, as well as any corrective action taken due to observed emissions. [401 KAR 52:020, Section 10]

b. The permittee shall keep records documenting all deficiencies noted during the monthly operational status inspections and the resulting maintenance that was performed. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of manufacturer's specifications identifying the grain loading and flow rate for which the control device was designed. [401 KAR 52:020, Section 10]

d. The permittee shall monitor the following: [401 KAR 52:020, Section 10]
   i. The volume and/or weight of sand, limestone, or other aggregate delivered and processed by the concrete batch plant;
   ii. The volume and weight of cement and fly ash delivered to the storage silo and processed;

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iii. The total cumulative hours of operation of this batch plant and associated dust control system;
iv. Monthly and 12-month rolling production of concrete in cubic yards;
v. Monthly and 12-month rolling emissions of PM, PM_{10}, and $PM_{2.5}$.

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

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

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

7. Specific Control Equipment Operating Conditions:

a. The permittee shall install, operate and maintain control devices, as specified above, according to the manufacturer's specifications and such that the emission limitations in **2. Emission Limitations** are met. [401 KAR 51:107]

b. For EP 24-01A and 24-01B, the permittee shall install, operate and maintain a dust collector designed to control 99.5% of particulate emissions. [401 KAR 51:017]

c. For EP 24-02 through 24-04, the permittee shall install, operate, and maintain water spray systems for the control of fugitive dust. [401 KAR 51:017]

d. For EP 24-05, the permittee shall install, operate and maintain a dust collector designed to control 99.6% of particulate emissions. [401 KAR 51:017]

e. Refer to **SECTION E.**

SECTION I - COMPLIANCE SCHEDULE

N/A

APPENDIX A

COMPLIANCE ASSURANCE MONITORING PLAN (CAM)

Pollution Control System for PM Emissions from EU 01, EU 20, EPs 15-01, 15-02, 26-01, & 26-02

APPENDIX A: COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

I. Applicability

Under 40 CFR Part 64, Compliance Assurance Monitoring (CAM) regulations, facilities are required to prepare and submit monitoring plans for certain emission units with the initial or renewal Part 70 operating (Title V) permit application. Under the general applicability criteria, CAM only applies to each pollutant-specific emission unit (PSEU) that satisfies the following criteria pursuant to 40 CFR 64.2(a)(1)-(3):

1. The unit is subject to an emission limitation or standard;
2. The unit uses an active control device to achieve compliance with an emission limitation or standard; and
3. The unit has potential pre-control device emission equal to or greater than the amount (tons per year) required to classify the unit as a major source under Part 70.

Per 40 CFR 64.2(b), CAM does not apply to any pollutant-specific emission unit that is subject to a New Source Performance Standards (NSPS, section 111 of the CAA) or National Emission Standards for Hazardous Air Pollutants (NESHAP, section 112 of the CAA) promulgated after November 15, 1990. As these standards are designed with monitoring that provides a reasonable assurance of compliance. With the installation of the Expansion Project and acquisition of Steel Technologies, NSG became a major source of HAP. As a major source, the PGL HCl Pickle Line (EP 15-02) became an existing affected source and the Pickle Line (EP 26-01) became a new affected source under the Steel Pickling NESHAP (Subpart CCC). The Steel Pickling MACT was promulgated after 1990, and limits emissions of HCl from new and existing affected continuous or batch pickling lines. As such, the PGL HCl Pickle Line (EP 15-02) and Pickle Line (EP 26-01) are exempt from the CAM Plan requirements for HCl.

On December 28, 2007, the U.S. Environmental Protection Agency ("EPA") issued a NESHAP for the electric arc furnace (EAF) steel industry. This NESHAP was codified as 40 CFR 63, Subpart YYYYY. Pursuant to 40 CFR 63.10686(e), the exemption in 40 CFR 64.2(b) for emission limitations or standards does not apply. As such, Nucor Steel Gallatin LLC is required to submit a CAM plan as part of the Title V permit renewal process. This CAM plan addresses the positive and negative pressure baghouses that collect particulate emissions from the existing Melt Shop 1 (EU01) and the new Melt Shop 2 (EU20). It also addresses PM emissions from the PGL Pickle Line Scrubber (EP 15-02), PGL Scale Breaker Baghouse (EP 15-01), and Pickle Line Scale Breaker Baghouse (EP 26-02).

The Melt Shop #1 building is evacuated to two positive pressure fabric filter baghouses with a capacity of 1.3 MM acfm and 1 MM acfm (Baghouses #1 and #2, respectively). Emissions are vented to Baghouse #1 by two direct exhaust ducts off the twin-shell EAF and nine indirect ducts located throughout Melt Shop #1. Emissions are vented to baghouse #2 by 2 direct exhaust ducts off the LMF and A Furnace Ladle Stir Station and 3 indirect ducts from the Melt Shop #1 building canopy. Baghouse #1 and Baghouse #2 use membrane coated fiberglass bags. Both baghouses utilize reverse airflow to clean the bags and have a combined stack. The control efficiency of the combined PM emissions from Baghouse #1 and Baghouse #2 stack (EP 01-01) is at least 99%.

The Melt Shop #2 building is evacuated to a negative pressure fabric filter baghouse (Baghouse #3) with a capacity of 2.1 MM acfm. Emissions are vented to Baghouse #3 (EP 20-01) by three

direct exhaust duct off the EAF and three indirect ducts located throughout Melt Shop #2. Baghouse #3 (EP 20-01) uses membrane coated fiberglass bags and utilizes reverse airflow to clean the bags. The efficiency of Baghouse #3 (EP 20-01) is rated at 99%.

The PGL Pickle Line Scale Breaker (EP 15-01) is evacuated to a negative pressure fabric filter baghouse with a capacity of 50,500 acfm. Emissions are vented to the PGL Pickle Line Scale Breaker Baghouse (EP 15-01) by five direct exhaust ducts off the scale breaker. PGL Pickle line Scale Breaker Baghouse (EP 15-01) uses polyester, non-teflon coated bags and utilizes pulse-jet technology to clean the bags. The PM control efficiency of PGL Pickle Line Scale Breaker Baghouse (EP 15-01) is 99.5%.

The Pickle Line (formerly Steel Technologies) Scale Breaker (EP 26-02) is evacuated to a negative pressure fabric filter baghouse with a capacity of 20,000 acfm. Emissions are vented to the Pickle Line Scale Breaker Baghouse (EP 26-02) by one direct exhaust duct off the scale breaker. Pickle line Scale Breaker Baghouse (EP 26-02) uses polyester, non-teflon coated bags and utilizes pulse-jet technology to clean the bags. The PM control efficiency of Pickle Line Scale Breaker Baghouse (EP 26-02) is 99.5%.

The PGL Pickle Line process tanks and recirculation tanks are evacuated to a wet scrubber with an efficiency rating of 98%. Emissions are vented to the scrubber by 4 direct exhaust ducts off the process tanks and 4 direct exhaust ducts off the recirculation tanks. The PGL pickle line scrubber (EP 15-02) is a packed-bed scrubber with a PM control efficiency of 98%.

The HCl Pickling Line & Acid Storage Tanks (EP 26-01) process tanks and recirculation tanks are evacuated to Wet Scrubber #2. 4-stage wet scrubber with a PM control efficiency of 98% is used to reduce emissions from the pickle process tanks, recirculation (process) tanks, ferrous chloride (storage) tanks, and raw hydrochloric acid (storage) tanks.

II. Monitoring Approach

Monitoring of Melt Shop #1 Baghouses #1 and #2 (EP 01-01) and Melt Shop #2 Baghouse #3 (EP 20-01) for compliance assurance is accomplished by:

i. Broken bag detector.
ii. Daily visible emission readings (opacity) by a certified Method 9 observer.
iii. Weekly inspection conducted according to work practices and scheduling.
iv. Annual emissions performance test conducted as specified in by the Title V permit in Section B.

Monitoring of PGL Scale Breaker Baghouse (EP 15-01) and Scale Breaker baghouse (EP 26-02) for compliance assurance is accomplished by:

i. Daily pressure drop across the baghouse.
ii. Weekly qualitative visible observation of opacity of each stack.
iii. Weekly inspection conducted according to work practices and scheduling.

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Monitoring of PGL HCl Pickling Line Wet Scrubber #1 (EP 15-02) for compliance assurance is accomplished by:

i. Continuous monitoring of the conductivity of the recirculation water, high and low set points for makeup water addition, and maximum conductivity (Note – NSG received approval from EPA Region IV on October 21, 2021 to continuously monitor the conductivity of the recirculation water as an alternative monitoring requirement per 40 CFR 63.1162(a)(6) in lieu of monitoring the scrubber makeup water flow rate). Conductivity shall be measured continuously while the scrubber is operating and recorded a minimum of once every 15 minutes into an electronic system.
ii. An "eyes-on" confirmation must be conducted and recorded a minimum of once per day to ensure the conductivity output of the meter and the conductivity value recorded in electronic system correspond with one another.
iii. Continuous monitoring of the flow rate of the recirculation water
iv. Once per shift pressure drop across the scrubber
v. Weekly qualitative visual observation of the opacity of emissions from the stack.
vi. Weekly inspection conducted according to work practices and scheduling.

Monitoring of HCl Pickling Line & Acid Storage Tanks Wet Scrubber #2 (EP 26-01) for compliance assurance is accomplished by:

i. Monitoring and recording inlet and outlet scrubber pressure once per shift.
ii. Recording the scrubber makeup water flow rate at least once per shift.
iii. Weekly qualitative visual observation of the opacity of emissions from the stack.
iv. Weekly inspection conducted according to work practices and scheduling.

III. Rational for Selection of Performance Indicators

Performance indicators for the Melt Shop #1 Baghouses #1 and #2 (EP 01-01) and Melt Shop #2 Baghouse #3 (EP 20-01) include:

a. A bag leak detection system was selected as a performance indicator because it is a good indicator of proper operation and maintenance of the baghouses. When the baghouse is operating optimally, there will be no broken bags. In general, if the bag leak detector alarms then there is a broken bag and typically increased emissions (reduced performance). Baghouse #3 has a broken bag detector installed on the stack. Baghouses #1 and #2 has a broken bag detector installed on the combined stack.

b. Visible emissions (opacity) were selected as a performance indicator because it is a good indicator of proper operation and maintenance of the baghouses. When the baghouse is operating optimally, there will be no visible emissions. In general, an increase in visible emissions indicates reduced performance of the baghouse (e.g., loose or torn bags). The stack serving Baghouses #1 and #2 and the stack serving Baghouse #3 have an opacity standard of less than 3 percent as a 6-minute average. A certified opacity reader will perform a Method 9 observation on a daily basis.

c. Inspection and preventative maintenance was selected as a performance indicator. Qualified environmental teammates will conduct the inspection and preventative maintenance in accordance to work practices and scheduling. Visual inspections of the

baghouse and key control equipment, such as damper actuators, pressure sensors, fan blades, housing and motors, ductwork, and bag conditions, will be logged into Nucor Steel Gallatin LLC's maintenance tracking system (IVARA).

d. Emission testing for particulate matter using approved EPA Methods will confirm compliance performance of the baghouse. A performance test on the baghouse is conducted on an annual basis per the requirements in Section B of the Title V permit. Testing parameters are consistent with daily operating conditions.

Performance indicators for the PGL Scale Breaker Baghouse (EP 15-01) and Scale Breaker Baghouse (EP 26-02) includes:

a. The pressure drop across the baghouse was selected as a performance indicator because it is a good indicator of proper operation and maintenance of the scale breaker baghouses. When the baghouses are operating optimally, the pressure drop should be maintained within the manufacturer's recommended operating range. In general, an increase in the pressure differential indicates reduced performance of the baghouse (e.g. clogged bags or inadequate air flow).

b. Visible emissions (opacity) were selected as a performance indicator because it is a good indicator of proper operation and maintenance of the baghouses. When the baghouse is operating optimally, there will be no visible emissions. In general, an increase in visible emissions indicates reduced performance of the baghouse (e.g., loose or torn bags). The PGLScale Breaker (EP 15-01) and Scale Breaker (EP 26-02) Baghouses have an opacity standard of 20%. A qualitative visual observation is performed weekly.

c. Inspection and preventative maintenance was selected as a performance indicator. Qualified environmental teammates will conduct the inspection and preventative maintenance in accordance to work practices and scheduling. Visual inspections of the baghouse and key control equipment, such as damper actuators, pressure sensors, fan blades, housing and motors, ductwork, and bag conditions, will be logged into Nucor Steel Gallatin LLC's maintenance tracking system (IVARA). Implementation of the baghouse inspection and maintenance program provides assurance that the baghouse is in good repair and operating properly.

Performance indicators for the PGL HCl Pickling Line Scrubber (EP 15-02) include:

a. The monitoring of the conductivity of the recirculation water in the scrubber was selected as a performance indicator because it is a good indicator of proper operation and maintenance of the PGL HCl Pickling Line Scrubber. When the scrubber is operating optimally, the recirculation water will discharge when the conductivity level of the recirculation water reaches a set value determined by the compliance test and replenish with fresh makeup water. The conductivity level is based on the absorption capacity of the scrubber. In general, an increase in conductivity indicated reduced performance of the scrubber. The conductivity of the recirculation water will be recorded electronically a minimum of once every 15 minutes and a minimum of once per day the meter and electronic system will be compared to ensure the conductivity value recorded in electronic system correspond with one another.

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b. The monitoring of the recirculation water flow rate was selected as a performance indicator because it is a good indicator of proper operation and maintenance of the scrubber. When the scrubber is operating optimally, there will be a continuous recirculation water flow rate. In general, a decrease in recirculation water flow rate indicated reduced performance of the scrubber (e.g. clog nozzles). The minimum recirculation water flow rate is determined during the most recent stack test. The recirculation water flow rate will be recorded once per shift.

c. The monitoring of the pressure drop across the scrubber was selected as a performance indicator of proper operation of the scrubber. When the scrubber is operating optimally, the pressure drop across the scrubber will be maintained within the range specified by the manufacturer. When the pressure drop across the scrubber is outside the specified range (greater than 4 in. H_2O), it may indicate a need for maintenance. The pressure drop across the scrubber will be recorded once per shift.

d. Visible emissions (opacity) were selected as a performance indicator because it is a good indicator of proper operation and maintenance of the wet scrubber. When the scrubber is operating optimally, there will be no visible emissions. In general, an increase in visible emissions indicates reduced performance of the wet scrubber (e.g., inadequate water spray). The wet scrubber has an opacity standard of 20%. A qualitative visual observation is performed weekly.

e. Inspection and preventative maintenance was selected as a performance indicator. Qualified environmental teammates will conduct the inspection and preventative maintenance in accordance to work practices and scheduling. Visual inspections of the wet scrubber and key control equipment, such as damper actuators, pressure sensors, fan blades, housing and motors, ductwork, and scrubber media, will be logged into Nucor Steel Gallatin LLC's maintenance tracking system (IVARA).

Performance indicators for the HCl Pickling Line & Acid Storage Tanks Wet Scrubber #2 (EP 26-01) include:

a. The monitoring of the pressure drop across the scrubber was selected as a performance indicator of proper operation of the scrubber. When the scrubber is operating optimally, the pressure drop across the scrubber will be maintained within the range specified during compliance testing. When the pressure drop across the scrubber is outside the specified range (12.5 in. H2O ± 2), it may indicate a need for maintenance. The pressure differential across the scrubber will be recorded once per shift.

b. Monitoring scrubber makeup water flow rate was selected as a performance indicator because it demonstrates proper maintenance, operation, and function of the scrubber. Adequate makeup water flow rate is evidence that the system is properly adding new water to reduce HCl at the stack. Flow rate will be determined during the performance test.

c. Visible emissions (opacity) were selected as a performance indicator because it is a good indicator of proper operation and maintenance of the wet scrubber. When the scrubber is operating optimally, there will be no visible emissions. In general, an increase in visible emissions indicates reduced performance of the wet scrubber (e.g., inadequate water

spray). The wet scrubber has an opacity standard of 20%. A qualitative visual observation is performed weekly.

d. Inspections and preventative maintenance were selected as a performance indicator. Qualified Nucor Steel Gallatin teammates will conduct the inspection and preventative maintenance in accordance with work practices and scheduling. Visual inspections of the wet scrubber and key control equipment, such as damper actuators, pressure sensors, fan blades, housing and motors, ductwork, and scrubber media, will be logged into Nucor Steel Gallatin LLC's maintenance tracking system (IVARA).

IV. Rationale for Selection of Indicator Ranges

Indicator ranges for the Melt Shop #1 Baghouses #1 and #2 (EP 01-01) and Melt Shop #2 Baghouse #3 (EP 20-01) are:

a. The indicator range for broken bag detectors is the observation of visible emissions or alarm status on bag leak detection system.

b. The indicator range for opacity is a 6-minute average opacity of less than 3 percent. The 6-minute average is made up of observations taken at 15-second intervals by a certified VE reader. This indicator range was selected based on the facility's permit requirements and 40 CFR Part 60.272a. All excursions will be documented and reported. An indicator range of less than 3 percent opacity was selected because: (1) an increase in visible emissions is indicative of an increase in particulate emissions; and (2) this monitoring technique requires a Method 9 certified observer.

c. The indicator range for PM emissions testing of the stack serving Baghouses #1 and #2 and the stack serving Baghouse #3 is a filterable particulate grain loading less than 0.0018 grain/dscf as measured by Reference Method 5D, 40 CFR 60, Appendix A. This indicator range was selected based on the facility's permit requirements. An excursion will result in a failed compliance test. The test will be repeated and the cause of the exceedance will be documented and reported.

Indicator ranges for the PGL Scale Breaker Baghouse (EP 15-01) and Scale Breaker Baghouse (EP 26-02) are:

a. The indicator range for the PGL Scale Breaker Baghouse pressure differential is <6 kPa. The indicator range for the Scale Breaker Baghouse (EP 26-02) pressure differential is 4 in H_2O. The indicator range was selected based on the facility's permit requirements and normal operating range specified by manufacturer specifications. All excursions will be documented and reported. An indicator range of <6 kPa and 4 in H_2O, respectively were selected because a pressure differential greater than the established ranges is indicative of an increase in particulate matter.

b. The indicator range for visible emissions is any visible emissions observed from the baghouse stack, not including condensed water in the plume. If visible emissions from the stack are observed, an inspection will be initiated and corrective actions taken as necessary. If visible emissions are observed after implementing corrective actions, the opacity will be determined using EPA Reference Method 9. All visible emissions observations will be

documented, including whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions.

Indicator ranges for the PGL HCl Pickling Line Wet Scrubber #1 (EP 15-02) are:

a. The indicator range for Wet Scrubber #1 is the recirculation water having a conductivity value less than the maximum observed conductivity during the most recent performance test in which compliance was demonstrated. The indicator range was selected based on the design of the equipment and the letter from EPA approving the alternative monitoring requirement to control HCl emissions. The scrubber is designed to replenish the recirculation water before it reaches the maximum conductivity identified during the stack test. All excursions will be documented and reported.

b. The indicator range for Wet Scrubber #1 recirculation water flow rate is an average flow rate equal to or greater than the minimum value observed during the most recent performance test in which compliance was demonstrated. The indicator range will be measured using a continuous flow meter. The indicator range was selected based on the facility's permit requirements and 40 CFR Part 63, Subpart CCC. All excursions will be documented and reported. An indicator range of greater than or equal to the minimum value observed during the performance test was selected because a decrease in flow rate is indicative of inefficient scrubbing of the incoming fumes.

c. The indicator range for Wet Scrubber #1 pressure differential is 4 in. H_2O. The indicator range was selected based on manufacturer specifications. All excursions will be documented and reported. An indicator range of 4 in. H_2O was selected because a pressure differential greater than 4 in. H_2O is indicative of an increase in particulate matter.

d. The indicator range for visible emissions is any visible emissions observed from the scrubber stack, not including condensed water in the plume. If visible emissions from the stack are observed, an inspection will be initiated, and corrective actions taken as necessary. If visible emissions are observed after implementing corrective actions, the opacity will be determined using EPA Reference Method 9. All visible emissions observations will be documented, including whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions.

Indicator ranges for the HCl Pickling Line & Acid Storage Tanks Wet Scrubber #2 (EP 26-01) are:

a. The indicator range for Wet Scrubber #2 pressure differential is 12.5 inches $H_2O \pm 2$. This indicator range was selected as an indicator based on an operating range representative of normal operations. The scrubber is designed to continually run at the designated pressure differential during operations. Any excursion from the indicator range is indicative of increased particulate matter or a malfunction.

b. The indicator range for Wet Scrubber #2 fresh make-up feed water is an average flow rate equal to or greater than the minimum value observed during the most recent performance test in which compliance was demonstrated. This indicator range will be measured using a

continuous flow meter. This indicator range was selected based on the facility's permit requirements and 40 CFR Part 63 Subpart CCC. All excursions will be documented and reported. An indicator range of greater than or equal to the minimum value observed during the compliance test was selected because a decrease in flow rate is indicative of inefficient scrubbing of the incoming fumes.

c. The indicator range for Wet Scrubber #2 visible emissions is any visible emissions observed from the scrubber stack, not including condensed water in the plume. If visible emissions from the stack are observed, an inspection will be initiated, and corrective actions taken as necessary. If visible emissions are observed after implementing corrective actions, the opacity will be determined using EPA Reference Method 9. All visible emissions observations will be documented, including whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions.

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Table 1. Monitoring Approach for Melt Shop #1 Baghouses #1 and #2 (EP 01-01) and Melt Shop #2 Baghouse #3 (EP 20-01)

CAM Monitoring Approach		Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4
I	**Indicator**	*Broken Bag Detector*	*Visible Emissions*	*Inspection/ Maintenance*	*Performance Test Results*
A.	Measurement Approach	Broken baghouse bags will be monitored using the broken bag detector	Visible emissions from the baghouse exhaust will be monitored daily using EPA Method 9.	Weekly inspection according to PM checklist; maintenance performed routinely.	PM emissions will be measured during an annual compliance test ensure permit limits are not exceeded.
II	**Indicator Range**	An excursion is defined as the presence of emissions greater than the broken bag detectors limit. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as the presence of visible emissions greater than 3% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as the failure to conduct the required inspection, PM, or maintenance.	An excursion is defined as particulate grain loading greater than 0.0052 grain/dscf measured during a compliance test. An excursion results in a repeated test and triggers a reporting requirement.
III	**Performance Criteria**				
A.	Data Representativeness	Logs of alarms and corrective actions taken will be maintained	Visual inspection logs will be maintained and audited to ensure VE readings are conducted.	Inspections are performed on the baghouse	The permittee shall comply with the requirements of 40 CFR 60.275a, Test methods and procedures.
B	Verification of Operational Status	Records of the alarms and corrective actions taken will be maintained by the Environmental Department.	Records of the readings will be maintained by the environmental department.	NA	Fan amps and damper position
C	QA/QC Practices & Criteria	NA	NA	Qualified personnel perform inspection.	Measurements are being taken in accordance to Reference Method 5D, 40 CFR 60, Appendix A.
D	Monitoring Frequency	Continuous	Daily	Weekly	Annually

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CAM Monitoring Approach		Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4
IV	**Data Collection Procedures**	The environmental technicians will be familiar with baghouse operations. Records are maintained to document alarms and any required maintenance.	The VE observer will be familiar with baghouse operations and be a certified Method 9 reader.	Records are maintained to document weekly inspections and any required maintenance.	Compliance test results are reported within 45 day of the completion of the field work.
V	**Averaging Period**	NA	6 minute average	NA	3 heats and 240 minutes
VI	**Recordkeeping**	Maintain records for a period of 5 years	Maintain records for a period of 5 years.	Maintain records for a period of 5 years.	Maintain test results for a period of 5 years.
VII	**Reporting**	Number, duration, cause of excursion, and corrective action taken.	Number, duration, cause of excursion, and corrective action taken.	Number, duration, cause of any excursion and the corrective action taken.	Submit test protocol and final test results to the Division for Air Quality.

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Table 2. Monitoring Approach for PGL Scale Breaker Baghouse (EP 15-01) and Scale Breaker Baghouse (EP 26-02)

CAM Monitoring Approach		Indicator No. 1	Indicator No. 2	Indicator No. 3
I	**Indicator**	*Visible Emissions*	*Inspection/Maintenance*	*Pressure Differential*
A.	Measurement Approach	Visible emissions from the stack exhaust will be monitored once every week using a qualitative visual observation	Weekly inspection according to PM checklist; maintenance performed routinely.	A pressure gauge on the inlet and the outlet of the baghosue will be used to monitor the pressure differential across the baghouse. The ΔP will be recorded daily.
II	**Indicator Range**	An excursion is defined as the presence of any visible emissions leaving the stack (not including condense water in the plume). Excursions trigger an inspection, corrective actions, and a reporting requirement	An excursion is defined as the failure to conduct the required inspection, PM, or maintenance.	For EP 15-01, an excursion is defined as a pressure differential greater than 6 kPa. For EP 26-02, an excursion is defined as a differential pressure outside of the 4 in H_2O. Excursions trigger an inspection, corrective action, and a reporting requirement.
III	**Performance Criteria**			
A.	Data Representativeness	Visual inspection logs will be maintained and audited to ensure observations are being conducted.	Inspections are performed on the baghouse	Pressure differential will be monitored and recorded daily. Logs will be audited to ensure readings are conducted.
B	Verification of Operational Status	Records of the readings will be maintained by the environmental department.	NA	Records of the readings will be maintained by the Environmental Department.
C	QA/QC Practices & Criteria	NA	Qualified personnel perform inspection.	Measurements are being taken in accordance to Reference Method 5D, 40 CFR 60, Appendix A.
D	Monitoring Frequency	Weekly	Weekly	Daily
IV	**Data Collection Procedures**	The VE observer will be familiar with baghouse operations.	Records are maintained to document weekly inspections and any required maintenance.	Teammate shall be familiar with baghouse operations. Records are maintained to document operations.
V	**Averaging Period**	6 minute average	NA	NA
VI	**Recordkeeping**	Maintain records for a period of 5 years.	Maintain records for a period of 5 years.	Maintain test results for a period of 5 years.
VII	**Reporting**	Number, duration, cause of excursion, and corrective action taken.	Number, duration, cause of any excursion and the corrective action taken.	Number, duration, cause of excursion, and corrective action taken

APPENDIX A: COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

Table 3. Monitoring Approach for PGL HCl Pickling Line Wet Scrubber #1 (EP 15-02)

CAM Monitoring Approach		Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4	Indicator No. 5
I	**Indicator**	*Recirculation Water Conductivity*	*Recirculation Water Flow Rate*	*Inspection/ Maintenance*	*Pressure Differential*	*Visual Observation*
A.	Measurement Approach	Continuous conductivity meter will be used to monitor the recirculation water	Continuous flow meter will be used to monitor the recirculation water	Weekly inspection according to PM checklist; maintenance performed routinely.	A pressure gauge on the inlet and the outlet of the scrubber will be used to monitor the pressure differential of the scrubber. The ΔP will be recorded once per shift	Visible emissions from the scrubber stack exhaust will be monitored weekly using a qualitative visual observation
II	**Indicator Range**	An excursion is defined as the exceedance of conductivity level established during most recent compliance test. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as a flow rate less than the flowrate defined during the most recent compliance test. Excursions trigger an inspection, corrective action, and a reporting requirement	An excursion is defined as the failure to conduct the required inspection, PM, or maintenance.	An excursion is defined as a pressure differential greater than 4 in. H_2O. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as the presence of any visible emissions leaving the stack. Excursions trigger an inspection, corrective actions, and a reporting requirement.
III	**Performance Criteria**					
A.	Data Representativeness	Conductivity will be monitored continuously and recorded once per shift. Logs will be audited to ensure readings are conducted	Flow rate will be monitored continuously and recorded once per shift. Logs will be audited to ensure readings are conducted	Inspections are performed on the scrubber	Pressure differential will be monitored continuously and recorded once per shift. Logs will be audited to ensure readings are conducted.	Visual inspection logs will be maintained and audited to ensure observations are being conducted.
B	Verification of Operational Status	Records of the readings will be maintained by the Environmental Department.	Records of the readings will be maintained by the environmental department.	NA	Records of the readings will be maintained by the Environmental Department.	Records of the readings will be maintained by the Environmental Department.
C	QA/QC Practices & Criteria	NA	NA	Qualified personnel perform inspection.	NA	NA
D	Monitoring Frequency	Continuous	Continuous	Weekly	Continuous	Weekly

APPENDIX A: COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

CAM Monitoring Approach		Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4	Indicator No. 5
IV	**Data Collection Procedures**	Teammate shall be familiar with scrubber operations. Records are maintained to document operations.	Teammate shall be familiar with scrubber operations. Records are maintained to document operations.	Records are maintained to document daily inspections and any required maintenance.	Teammate shall be familiar with scrubber operations. Records are maintained to document operations.	The VE observer will be familiar with scrubber operations.
V	**Averaging Period**	NA	NA	NA	NA	NA
VI	**Record-keeping**	Maintain records for a period of 5 years	Maintain records for a period of 5 years.	Maintain records for a period of 5 years.	Maintain test results for a period of 5 years.	Maintain test results for a period of 5 years.
VII	**Reporting**	Number, duration, cause of excursion, and corrective action taken.	Number, duration, cause of excursion, and corrective action taken.	Number, duration, cause of any excursion and the corrective action taken.	Number, duration, cause of excursion, and corrective action taken	Number, duration, cause of excursion, and corrective action taken

APPENDIX A: COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

Table 4. Monitoring Approach for HCl Pickling Line & Acid Storage Tanks Wet Scrubber #2 (EP 26-01)

CAM Monitoring Approach		Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4
I	**Indicator**	*Makeup Water Flow Rate*	*Inspection/ Maintenance*	*Pressure Differential*	*Visual Observation*
A.	Measurement Approach	Continuous flow meter will be used to monitor the makeup water and recorded at least once per shift.	Weekly inspection according to PM checklist; maintenance performed routinely.	A pressure gauge on the inlet and the outlet of the scrubber will be used to monitor the pressure differential of the scrubber. The ΔP will be recorded once per shift	Visible emissions from the scrubber stack exhaust will be monitored weekly using a qualitative visual observation
II	**Indicator Range**	An excursion is defined as a flow rate above the value established in the most recent compliance test. Excursions trigger an inspection, corrective action, and a reporting requirement	An excursion is defined as the failure to conduct the required inspection, PM, or maintenance.	An excursion is defined as a pressure differential outside of the 12.5 ± 2 in. H_2O range. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as the presence of any visible emissions leaving the stack stack (not including condense water in the plume). Excursions trigger an inspection, corrective actions, and a reporting requirement.
III	**Performance Criteria**				
A.	Data Representativeness	Flow rate will be monitored continuously and recorded once per shift. Logs will be audited to ensure readings are conducted	Inspections are performed on the scrubber	Pressure differential will be monitored continuously and recorded once per shift. Logs will be audited to ensure readings are conducted.	Visual inspection logs will be maintained and audited to ensure observations are being conducted.
B	Verification of Operational Status	Records of the readings will be maintained by the Environmental Department.	NA	Records of the readings will be maintained by the Environmental Department.	Records of the readings will be maintained by the Environmental Department.
C	QA/QC Practices & Criteria	NA	Qualified personnel perform inspection.	NA	NA
D	Monitoring Frequency	Continuous	Weekly	Continuous	Weekly
IV	**Data Collection Procedures**	Teammate shall be familiar with scrubber operations. Records are maintained to document operations.	Records are maintained to document daily inspections and any required maintenance.	Teammate shall be familiar with scrubber operations. Records are maintained to document operations.	The VE observer will be familiar with scrubber operations.
V	**Averaging Period**	NA	NA	NA	NA

APPENDIX A: COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

CAM Monitoring Approach		Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4
VI	**Recordkeeping**	Maintain records for a period of 5 years.	Maintain records for a period of 5 years.	Maintain test results for a period of 5 years.	Maintain test results for a period of 5 years.
VII	**Reporting**	Number, duration, cause of excursion, and corrective action taken.	Number, duration, cause of any excursion and the corrective action taken.	Number, duration, cause of excursion, and corrective action taken	Number, duration, cause of excursion, and corrective action taken

V. Justification

The most recent performance test was conducted on July 13-15, 2022 for Baghouse #1 and #2 Combined Stack and Baghouse #3. During this test, the average measured particulate matter emissions were 0.0003 gr/dscf for Baghouse #1 and #2 Combined Stack. Opacity observations during testing averaged zero percent for Baghouse #1 and #2 Combined Stack. Also, during the July 13-15, 2022 test, the average measured particulate matter emissions were 0.0005 gr/dscf for Baghouse #3. Opacity observations during testing averaged zero percent for Baghouse #3.

The complete test results and Baseline Operations are documented in the August 29, 2022 test report submitted to the Division for Air Quality. Particulate matter CEMs or continuous opacity monitors cannot be used to monitor positive pressure baghouses.

The initial compliance test for the PGL HCl Pickling Line Wet Scrubber #1 was completed on February 12, 2020. The conductivity, recirculation water flowrate, and the pressure differential across the scrubber were monitored to verify the indicator ranges are acceptable for proper operation of the scrubber.

The HCl Pickling Line & Acid Storage Tanks Wet Scrubber #2 efficiency is determined during the required compliance testing. A control efficiency of greater than 99% indicates the scrubber is operating efficiently for HCl and particulate matter. The minimum makeup water flow rate and differential pressure are established during compliance testing to ensure maximum efficiency of the scrubber.

APPENDIX B

Pollution Prevention Plan (PPP) for the Control of Contaminants in Scrap Under 40 CFR 63, Subpart YYYYY

APPENDIX B: POLLUTION PREVENTION PLAN (PPP)

Pollution Prevention Plan (PPP) for the Control of Contaminants in Scrap Under the Area Source Rule for Electric Arc Furnace (EAF) Steelmaking Facilities

Contaminants such as chlorinated plastics, free organic liquids, lead (except for leaded steel) and mercury are not appropriate or desired for the production of steel in EAF facilities. However, these contaminants can be found in the scrap metal that is the basic feedstock for the production of new steel.

EPA has identified EAF facilities as potential sources of HAP emissions and, on December 28, 2007, promulgated final regulations (codified at 40 CFR 63, Subpart YYYYY) intended to control or minimize such emissions.

The regulations require EAF facilities, among other things, to restrict the use of certain scrap or follow a pollution prevention plan (PPP) for scrap purchased as production feedstock to minimize the amount of specified contaminants in such scrap.

Nucor Steel Gallatin LLC is committed to complying with the requirements of the EAF Area Source Rule and to the goal of removing at least 80% of mercury convenience-light switches from motor vehicle scrap. Nucor Steel Gallatin LLC is also committed to minimizing to the extent practicable the presence of these contaminants in scrap that may result in the emission of hazardous air pollutants (HAP).

Accordingly, Nucor Steel Gallatin LLC has adopted and will comply with the provisions of this PPP designed to control the presence of such contaminants in scrap that is consumed in the EAF by adopting:

1. A specification for scrap that addresses contaminants identified by EPA.
2. Procedures for verifying compliance with the specification.
3. Procedures for taking corrective action against vendors who do not comply with the specification.
4. Program policies, implementation elements, and training programs and outreach materials sufficient to demonstrate how Nucor Steel Gallatin LLC will appropriately implement its responsibilities under the EPA-approved National Vehicle Mercury Switch Recovery Program (NVMSRP) or other EPA-approved programs.

This PPP must be approved by U.S. EPA or a delegated authority. Any deficiencies identified by the permitting authority must be addressed within 60 days of disapproval of the PPP. A copy of the plan and supportive documentation must remain onsite.

The terms used in the Pollution Prevention Plan and in the outreach materials attached, shall have the same definitions as those enumerated in EPA's Final Area Source Rule found at 40 CFR Part 63 Subpart YYYYY. As outlined in the final rule, the term "mercury switch" denotes only mercury switches that are part of a convenience light switch mechanism installed in a vehicle.

APPENDIX B: POLLUTION PREVENTION PLAN (PPP)

I. General Scrap Specifications

The following restrictions are identified in Nucor Steel Gallatin LLC's scrap specifications and apply to all scrap steel purchased or used by Nucor Steel Gallatin LLC in its EAF steelmaking process:

A. Scrap materials must be depleted to the extent practicable of undrained used oil filters, chlorinated plastics, and free organic liquids at the time of charging to the furnace.

B. Lead-containing components of scrap, such as batteries, battery cables, and wheel weights, must be removed, to the extent practicable, prior to charging in the furnace unless the scrap is used to produce leaded steel.

C. Motor vehicle scrap must be purchased from providers that have minimized the presence of mercury in scrap through participation in the NVMSRP or another EPA-approved program.

II. Verification of Compliance with Specifications

A. Free Organic Liquids, Chlorinated Plastics, Lead and Lead-Containing Components:

1. Visual Inspection: Nucor Steel Gallatin LLC has a Safe Job Procedure that defines the procedures and responsibilities associated with scrap inspections. Nucor Steel Gallatin LLC conducts a visual inspection of incoming scrap loads to ensure the material meets the scrap specifications. Scrap inspections will be required to determine whether there is an obvious presence of free organic liquids, chlorinated plastics, or lead-containing components. Foreign materials in excess of *de minimus* amounts will be removed to the extent practicable, or the scrap supplier will be subject to corrective action.

2. Inspection for Free Organic Liquids: Turnings, borings, and other forms of scrap that were generated as a results of the processing of metal with use of cutting, lubricating or cooling fluids will be visually inspected prior to charging to the furnace to ensure that such scrap does not contain free organic liquids.

3. Depletion of Lead and Chlorinated Plastics from Shredded Scrap: Purchased scrap that has been processed through a shredder that utilizes magnetic or density separation techniques to separate ferrous and non-ferrous materials will be presumed to be depleted of chlorinated plastics and lead to the extent practicable.

4. Inspections: Nucor Steel Gallatin LLC may elect to audit or inspect the facilities that provide us with scrap types that would most likely be contaminated with plastics, lead, or free organic liquids on a periodic basis. Nucor Steel Gallatin LLC may also accept inspection reports or audits of applicable scrap suppliers that are conducted by the broker.

APPENDIX B: POLLUTION PREVENTION PLAN (PPP)

5. Unrestricted Scrap: Certain types of scrap, including "factory bundles," "plate & structural" "home scrap," "return scrap," "rail," "flashing," and similar uncontaminated scrap are not expected to contain free organic liquids, chlorinated plastics, or lead and will be presumed to be free of these contaminants.

6. Materials Identified in Permit V-14-013 R5: Baghouse bags, drugs, firearms, and internal process and maintenance materials that are routinely recycled by charging to the electric arc furnace, including personal protective equipment (PPE) and baghouse dust, are exempt from this PPP and not subject to the inspection and verification requirements of this plan.

B. Mercury

1. Nucor Steel Gallatin LLC shall ensure that motor vehicle scrap providers are participating in the National Vehicle Mercury Switch Recovery Program (NVMSRP) by conducting a review of the End of Life Vehicle Solutions (ELVS) database to confirm that the motor vehicle scrap provider is enlisted as a participating member. Nucor Steel Gallatin LLC will conduct a semi-annual review of the ELVS database to determine whether the provider remains identified as an NVMSRP participant;

   a. Nucor Steel Gallatin LLC may not be able to confirm that some motor vehicle scrap providers such as Brokers are enlisted as a participating member in the NVMSRP through the ELVS database. In these cases Nucor Steel Gallatin LLC will confirm that the broker is participating in the NVMSRP or another EPA-approved program by obtaining from the broker written assurance that any motor vehicle scrap provided by such broker to Nucor Steel Gallatin LLC was procured from other suppliers who are signed up for and are participating in the NVMSRP or another EPA-approved program;

   b. Nucor Steel Gallatin LLC will require motor vehicle scrap brokers to provide such written assurance on a semi-annual basis.

2. Nucor Steel Gallatin LLC will conduct a semi-annual review the ELVS database to corroborate that the participant is implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles by turning in mercury switches.

   a. Some motor vehicle scrap providers participating in the NVMSRP or another EPA-approved program may not be able to demonstrate their participation in NVMSRP or another EPA-approved program to minimize the presence of mercury in the motor vehicle scrap from end-of-life vehicles by turning in mercury switches because they refuse to accept motor vehicle scrap that contains mercury switches. Examples would be a broker who purchases motor vehicle scrap from program participants, or a shredder that

accepts only flattened vehicles from which the mercury switches already have been removed to the extent practicable prior to delivery to the shredder. For these motor vehicle providers, Nucor Steel Gallatin LLC will obtain written assurances from the provider or obtain other means of corroboration to verify that the participant is implementing appropriate steps to minimize the presence of mercury in the scrap from end-of-life vehicles. Written assurance will be confirmed on a semi-annual basis.

3. If a motor vehicle scrap provider does not participate in or demonstrate through written assurance that it purchases motor vehicle scrap through NVMSRP or another EPA-approved program for the removal of mercury switches, Nucor Steel Gallatin LLC shall only purchase motor vehicle scrap from such provider pursuant to an EPA-approved facility-specific program for the removal of mercury switches.

III. Corrective Action

A. Lead, Chlorinated Plastics, Free Organic Liquids

1. If, during inspection of scrap pursuant to Part II (A) above, Nucor Steel Gallatin LLC determines that the scrap provider has not met the specifications in Part I, the scrap provider will be subject to corrective action.

   a. A nonconforming scrap load will be rejected unless contaminants causing the failure can be removed or segregated to the extent practicable. The vendor may ship Unrestricted Scrap so long as it adheres to the provisions outlined in Part II (a)(5).

   b. After failure to meet the scrap specifications in Part I, the scrap provider must sign a statement acknowledging the requirements of the scrap specifications and provide either certification or another comparable form of reasonable assurance that the scrap specifications will be met in the future.

   c. If the vendor continues to fail to meet the scrap specifications, Nucor Steel Gallatin LLC will consult with the scrap provider on the cause or reasons why the scrap loads are nonconforming and will inform the scrap provider that they may be suspended if the problem is not resolved, at the discretion of the Material Handling Manager.

B. Mercury

1. If, Nucor Steel Gallatin LLC reasonably believes, either as a result of inspection, site visits to a scrap yard, or review of the ELVS database or by other means, that a scrap supplier is not taking appropriate steps to minimize the presence of mercury switches in scrap from end-of-life vehicles, the facility shall:

APPENDIX B: POLLUTION PREVENTION PLAN (PPP)

a. Issue a letter to the scrap provider reiterating the requirements of the NVMSRP or another EPA-approved program and threatening suspension if the scrap provider fails to fulfill its responsibilities under the NVMSRP or another EPA-approved program.

b. Suspend the scrap provider if, within six months of receipt of the letter described above, the scrap provider again fails to show that it is aware of the need for and is implementing appropriate steps to minimize the presence of mercury switches in auto shred to the extent practicable. The suspension shall only apply to the shipment of motor vehicle scrap by the scrap provider to Nucor Steel Gallatin LLC. The scrap provider will then have to re-qualify by demonstrating that it has cured the defect that caused the failure to meet the scrap specification.

c. For purpose of Section III A and B, if the nonconforming scrap is purchased through a broker, Nucor Steel Gallatin LLC will require the broker to provide written assurances that the broker implemented corrective action as set forth in Section III of this plan with respect to the supplier of such non-conforming scrap.