

Nucor Steel Florida, Inc.  
Nucor Steel Florida, Inc. (Nucor) Facility

Facility ID No. 1050472  
Highlands and Polk County

Title V Air Operation Permit Revision

**Permit No. 1050472-008-AV**

(2<sup>st</sup> Revision of Initial Title V Air Operation Permit No. 1050472-002-AV)



**Permitting Authority:**

State of Florida  
Department of Environmental Protection  
Division of Air Resource Management  
Permit Review Section  
2600 Blair Stone Road  
Mail Station #5505  
Tallahassee, Florida 32399-2400

Telephone: (850) 717-9000

Email: [DARM\\_Permitting@dep.state.fl.us](mailto:DARM_Permitting@dep.state.fl.us)

**Compliance Authority:**

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13051 N. Telecom Parkway  
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# Title V Air Operation Permit Revision

Permit No. 1050472-008-AV

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# FLORIDA DEPARTMENT OF Environmental Protection

**Ron DeSantis**  
Governor

**Alexis A. Lambert**  
Secretary

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**PERMITTEE:**

Nucor Steel Florida, Inc.  
22 Nucor Drive  
Frostproof, Florida 33843

Permit No. 1050472-008-AV  
Nucor Facility  
Facility ID No. 1050472  
Title V Air Operation Permit Revision

The purpose of this permit is to revise the initial Title V air operation permit for the above referenced facility. The existing Nucor Facility is located in Polk County at 22 Nucor Drive in Frostproof, Florida. The facility's property line also encompasses a portion of Highlands County. UTM Coordinates are: Zone 17, 448.72 kilometers (km) East, and 3,058.68 km North.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above-named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Executed in Tallahassee, Florida.

1050472-008-AV Effective Date: **DATE**  
1050472-005-AV Effective Date: **January 17, 2024**  
1050472-002-AV Effective Date: **May 10, 2022**  
Renewal Application Due Date: **September 27, 2026**  
Expiration Date: **May 10, 2027**

**(Proposed)**

David Lyle Read, P.E., Environmental Administrator  
Office of Permitting and Compliance  
Division of Air Resource Management

DLR/ivt

## SECTION I. FACILITY INFORMATION.

### Subsection A. Facility Description.

The Nucor Facility includes air emissions sources for the manufacture of steel products from scrap steel, home scrap, and scrap substitutes. Iron ore is not processed at the mill. The facility includes an electric arc furnace (EAF) melting and refining operations; ladle metallurgy furnace (LMF) operations; casting, rolling, and finishing operations; raw and product material handling; and other associated equipment to produce steel and slag products. The steel micro mill operates 24 hours per day and 7 days per week with a maximum annual steel production rate of 613,200 tons per year.

### Subsection B. Summary of Emissions Units.

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
001	Meltshop Baghouse & Fugitives
002	Casting Operations, Ladle Repair and Tundish Preheaters, Dryers, Dumping, Repair, and Caster Service Cutting Torches
003	Rolling Operations
004	Scrap Cutting
005	Raw, Slag and Waste Material Storage and Handling
006	Slag Yard
007	Silos
008	Two Cooling Towers
009	One 1,060-kilowatt (kW) emergency natural gas-fired generator
010	One emergency natural gas-fired 100 horsepower(HP) fire pump
011	Roads
012	Fuel Storage Tanks

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

### Subsection C. Applicable Regulations.

Based on the Title V air operation permit revision application received on November 22, 2024, this facility is not a major source of hazardous air pollutants (HAP). The existing facility is a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, NSPS General Provisions	001, 009, & 010, <u>014</u>
40 CFR 60, Subpart AAa, Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels	001
<u>40 CFR 60, Subpart IIII, Requirements for Stationary Compression Ignition Internal Combustion Engines</u>	<u>014</u>
40 CFR 60, Subpart JJJJ, Requirements for Stationary Spark Ignition Internal Combustion Engines	009 & 010
40 CFR 63, Subpart A, NESHAP General Provisions	001, 009, 010 & 012

## SECTION I. FACILITY INFORMATION.

Regulation	EU No(s).
<i>Federal Rule Citations</i>	
40 CFR 63, Subpart ZZZZ, Requirements for Reciprocating Internal Combustion Engines	009 & 010
40 CFR 63, Subpart YYYYY, Requirements for Area Sources: Electric Arc Furnace Steelmaking Facilities	001
40 CFR 63, Subpart CCCCCC, Requirements for Gasoline Dispensing Facilities	012
40 CFR 64, Compliance Assurance Monitoring	001
<i>State Rule Citations</i>	
Rule 62-204.800(11)(b), F.A.C., Federal Regulations Adopted by Reference	001, 009 & 010
Rule 62-210.300, F.A.C., Permits Required	001-012
Rule 62-210.650, F.A.C., Circumvention	
Rule 62-210.700, F.A.C., Excess Emissions	
Rule 62-212.300(1)(e), F.A.C., Emissions Monitoring, Recordkeeping, and Reporting	
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration	
<u>Rule 62-296.711, F.A.C. - Materials Handling, Sizing, Screening, Crushing and Grinding Operations</u>	<u>013</u>

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## SECTION II. FACILITY-WIDE CONDITIONS.

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**The following conditions apply facility-wide to all emission units and activities:**

**FW1. Appendices.** The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

### **Emissions and Controls**

**FW2. Not federally Enforceable. Objectionable Odor Prohibited.** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An “objectionable odor” means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

**FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions.** The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

*{Permitting Note: Nothing is deemed necessary and ordered at this time.}*

**FW4. General Visible Emissions.** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]

**FW5. Unconfined Particulate Matter.** No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. All conveyors and conveyor transfer points shall be partially enclosed to limit PM emissions.
- b. Water sprays for mill scale and slag storage piles and handling equipment shall be applied during dry periods and as necessary to all unconfined emissions points to maintain opacity below 20 percent. Water sprays and/or surfactants shall also be applied as necessary within the partially covered conveyors and drop points.
- c. All drop heights shall be minimized for the slag yard, storage piles, scrap yard, scrap building, dust loadout, and conveyor transfer points.
- d. All storage piles shall be shaped, compacted (if practicable) and oriented to minimize wind erosion.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application completed on January 13, 2022.]

### **Reports and Fees**

See Appendix RR, Facility-wide Reporting Requirements, for additional details and requirements.

**FW6. Electronic Annual Operating Report and Title V Annual Emissions Fees.** The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection’s Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP’s Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software.

## SECTION II. FACILITY-WIDE CONDITIONS.

Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1<sup>st</sup> of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, Post Office Box 3070, Tallahassee, Florida 32315-3070**. Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site:

<https://floridadep.gov/air/permitting-compliance/content/title-v-fees>. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

*{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: <http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at [eaor@dep.state.fl.us](mailto:eaor@dep.state.fl.us).}*

*{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. A separate Annual Emissions Fee form is no longer required to be submitted by March 1<sup>st</sup> each year.}*

**FW7. Annual Statement of Compliance.** The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the US. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective (See also Appendix RR, Conditions RR1 and RR7.) The annual statement of compliance can be submitted to the U.S. EPA via the Compliance and Emissions Data Reporting Interface (CEDRI) on EPA's Central Data Exchange (CDX) at <https://cdx.epa.gov/>. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4  
Atlanta Federal Center  
61 Forsyth Street, SW  
Atlanta, Georgia 30303  
Attn: Air Enforcement Branch

**FW8. Prevention of Accidental Releases (Section 112(r) of CAA).** If, and when, the facility becomes subject to 112(r), the permittee shall:

- a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent electronically through EPA's Central Data Exchange system at the following address: <https://cdx.epa.gov>. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: <http://www2.epa.gov/rmp>. The RMP Reporting Center can be contacted at: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
- b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

**FW9. Semi-Annual Reports.** The permittee shall monitor compliance with the terms and conditions of this permit and shall submit reports at least every six months to the compliance office. Each semi-annual report shall cover the 6-month periods of January 1 – June 30 and July 1 – December 31. The reports shall be submitted by the 60<sup>th</sup> day following the end of each calendar half (i.e., March 1<sup>st</sup> and August 29<sup>th</sup> of every



## SECTION II. FACILITY-WIDE CONDITIONS.

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year). All instances of deviations from permit requirements (including conditions in the referenced Appendices) must be clearly identified in such reports, including reference to the specific requirement and the duration of such deviation. If there are no deviations during the reporting period, the report shall so indicate. Any semi-annual reporting requirements contained in applicable federal NSPS or NESHAP requirements may be submitted as part of this report. The submittal dates specified above shall replace the submittal dates specified in the federal rules. All additional reports submitted as part of this report should be clearly identified according to the specific federal requirement. All reports shall include a certification by a responsible official, pursuant to subsection 62-213.420(4), F.A.C. (See also Conditions RR2. – RR4. of Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements related to deviations.) [Rule 62-213.440(1)(b)3.a., F.A.C.; and, 40 CFR 60.19(d), 40 CFR 61.10(h) & 40 CFR 63.10(a)(5)]

*{Permitting Note: EPA has clarified that, pursuant to 40 CFR 70.6(a)(3), the word “monitoring” is used in a broad sense and means monitoring (i.e., paying attention to) the compliance of the source with all emissions limitations, standards, and work practices specified in the permit.}*

### **Other Requirements**

**FW10. Facility-Wide Production Limit:** The Nucor Steel Florida Facility shall be limited to a production of rate of 613,200 tons of steel per year, based on a 12-month rolling total. [Rule 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-003-AC(PSD-FL-446B), Section 2, Condition 11]

**FW11. Operational Data:** Within 10 days following each calendar month, the permittee shall calculate and record the total production of steel for the month and the new 12-month total steel production rate to maintain compliance with the Facility-Wide Production Limit referenced in **Condition FW10**. Any exceedance of the Facility-Wide Production Limit shall be reported to the Department within two business days after the occurrence of the exceedance. [Rule 62-4.070(3), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Section 2, Condition 12]

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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Unit 001

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
001	Meltshop Baghouse & Fugitives

Emissions Unit 001 consists of one electric arc furnace (EAF), a ladle metallurgy station, alloy, carbon flux and slag handling in the meltshop, and natural gas combustion sources. The EAF is controlled by a combination of a direct emissions control (DEC) duct and a canopy hood. These systems capture the vast majority of emissions from steel making and ancillary operations, such as ladle and tundish dumping and preparation, and miscellaneous natural gas combustion in support of the primary activities. Some emissions from primary operations and ancillary operations escape the canopy hood. The uncaptured emissions may exit through doors, gaps around utility lines and seams in the building.

The emissions unit contained in this subsection is comprised of the following emissions points:

Point ID	Brief Description
EP07	Meltshop Baghouse
EP08	Meltshop Fugitives

The meltshop baghouse has a stack height of approximately 164 feet and an inner stack diameter of approximately 16.4 feet. The stack is equipped with a continuous emissions monitoring systems (CEMS) to measure and record sulfur dioxide (SO<sub>2</sub>) emissions.

*{Permitting Note: In accordance with Rule 62-212.400(PSD), F.A.C., this emission unit is subject to Best Available Control Technology (BACT) determinations for the following pollutants: greenhouse gas (GHG), carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM/PM<sub>10</sub>/PM<sub>2.5</sub>), SO<sub>2</sub>, volatile organic compounds (VOC), and fluoride (Fl). This emissions unit is also regulated under NSPS Subpart A (General Provisions) and Subpart AAa (Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels) of 40 CFR 60, adopted and incorporated by reference in Rule 62-204.800(8)(b)36., F.A.C.}*

#### **Essential Potential to Emit (PTE) Parameters**

##### **A.1. Permitted Capacity.**

- EAF Operation.** The permittee is authorized to operate and maintain one EAF equipped with 3-phase electrodes. EAF service cutting torches for the slag door area and the eccentric bottom tapping (EBT) area are also permitted for use. The EAF and service cutting torches shall be maintained and operated in accordance with the manufacturer's recommendations. [Rule 62-4.070(3), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 1]
- Meltshop Maximum Throughput and Design Heat Input Rates.** The maximum throughput rate and the maximum design heat input of the following operations and equipment are restricted as listed below:

Operations and/or Equipment	Maximum Throughput Rate and/or Design Heat Input Rate
EAF Natural Gas Modules	17.26 million British thermal unit per hour (MMBtu/hour)
EAF Service Cutting Torches	0.13 MMBtu/hour for EBT Torch, and 0.07 MMBtu/hour for Slag Door Area Torch 2.85 MMBtu/hour
Ladle preheaters	20.07 MMBtu/hour
Ladle Dryer	10.04 MMBtu/hour

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Unit 001

Operations and/or Equipment	Maximum Throughput Rate and/or Design Heat Input Rate
Ladle Skull Cutting Rate	0.50 MMBtu/hour & 200 tons per year (TPY)
Tundish Skull Cutting Rate	0.50 MMBtu/hour & 1,825 TPY
Ladle Dumping	460 TPY
Slag Dumping	73,584 TPY of slag

[Rule 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-0067-AC (PSD-FL-446CD, Subsection 3.A., Specific Condition 2]

- c. *Ladle Metallurgy Station*. The permittee is authorized to operate and maintain a ladle metallurgy station equipped with a ladle station roof and one LMF. [Rule 62-4.070(3), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 2]

**A.2. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

**A.3. Authorized Fuels.**

- a. *Charge Materials*. The types of materials authorized for charging the EAF includes scrap metal, home scrap, scrap substitutes, carbon-based feed (specifically tires or tire components, coke, and/or injection carbon), alloys, and fluxing agents (such as lime and dolomite). The owner or operator shall notify the Department of the use of a charge material not authorized by this permit by submitting a notification to [DARM\\_Permitting@dep.state.fl.us](mailto:DARM_Permitting@dep.state.fl.us) and following the procedures outlined in Rule 62-213.410, F.A.C.
- b. *Combustion Sources*. All combustion sources regulated under EU 001 shall only fire pipeline quality natural gas, with a sulfur content less than 2.0 gr./100 scf.

[Rules 62-210.200 (PTE) & 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.A., Specific Condition 5]

*{Permitting Note: Per Rule 62-213.410, Changes Without Permit Revision, F.A.C. ([Link to Rule](#)) once the AC permit has been incorporated into a Title V air operation permit, the permittee may take advantage of this rule where appropriate.}*

**A.4. Hours of Operation.** The hours of operation are not limited (8,760 hours per year). [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 9]

**Control Technology**

**A.5. Canopy Hood & Direct Evacuation Control (DEC) System.** The permittee shall operate and maintain a canopy hood for the melt shop and a DEC system connected to the “fourth hole” in the roof of the permitted EAF. [Rule 62-212.400(10)(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 3]

**A.6. Baghouse.** The permittee shall operate and maintain a baghouse at all times this emissions unit is operating to minimize PM and FI emissions to meet the emission limits given in Specific Condition **A.12**. All operators of air pollution control devices shall be properly trained in plant equipment. The maximum design flow rate of the baghouse is restricted to 599,000 dry standard cubic feet per minute (dscfm). [Rule 62-212.400(10)(BACT), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.A., Specific Condition 2]

**A.7. GHG BACT Controls.** The following energy-efficient practices and designs shall be maintained to control GHG emissions from the EAF and LMF to meet the emission limit given in Specific Condition **A.12**.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Unit 001

- a. Oxy-fuel burners on the EAF (used for reducing GHG and NO<sub>x</sub> emissions)
  - b. Adjustable Speed Drives on Baghouse
  - c. Transformer Efficiency-Ultra-High-Power (UHP) Transformers
  - d. Bottom Stirring/Stirring Gas Injection
  - e. Foamy Slag Practices
  - f. Post Combustion of the Flue Gases
  - g. Scrap Preheating
  - h. Engineered Refractories
  - i. Eccentric Bottom Tapping on Furnace.
  - j. Energy Monitoring and Management System (includes flue gas monitoring and control)
- [Rule 62-212.400(10)(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 5]

**A.8. Circumvention.** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

#### **Work Practice Standards & Monitoring Requirements**

- A.9. Good Combustion Practices.** The permittee shall operate and maintain the natural gas combustion sources in accordance with the manufacturer's recommendations and optimize the air-to-fuel ratio through proper tuning and maintenance. [Rules 62-4.070(3) & 62-212.400(10)(BACT), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.A., Specific Condition 13]
- A.10. Fuel Flow Monitor.** If feasible, the permittee shall install, operate, and maintain a volumetric gas flow monitor to measure the fuel usage rate on an hourly basis for each source that is limited to a lb/MMBtu standard. Otherwise, the total natural gas consumption shall be monitored, and the total shall be apportioned among units based upon maximum heat input design capacity. The total natural gas consumption shall be determined through monthly natural gas bills for NSFL. The hourly fuel usage rates shall be averaged on a 3-hour basis. To evaluate a 3-hour average heat input rate, the averaged fuel usage shall be evaluated using the higher heating value of natural gas at 1,020 MMBtu/10<sup>6</sup> scf. [Rules 62-4.070(3) & 62-212.400(10)(BACT), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.A., Specific Condition 14]
- A.11. Additional Monitoring of Natural Gas Usage.** The permittee shall maintain records of the natural gas usage prorated based on heat input capacity for each natural gas combustion source operating without a fuel flow monitor. [Rule 62-4.070(3), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.A., Specific Condition 15]

#### **Emission Limitations and Standards**

Unless otherwise specified, the averaging times for Specific Condition **A.12.** are based on the specified averaging time of the applicable test method.

#### **A.12. Emissions Standards.**

- a. **Primary BACT Emissions Standards.** Emissions from EU 001 shall not exceed the following standards at all times (including periods of startup, shutdown and malfunction):

Emission Source	Pollutant	BACT Limit	Equiv. lb/hour	Avg. Period	BACT Control Method	Compliance Method
Meltshop Baghouse, EAF / LMF	PM/PM <sub>10</sub> /PM <sub>2.5</sub>	0.0015 gr/dscf for PM (filterable)	7.70 lb/hour	Average of 3 one-hour	DEC (Fume Hood) and Baghouse	Initial and Annual Stack Testing EPA Methods 5, 9, 201,

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Unit 001

Emission Source	Pollutant	BACT Limit	Equiv. lb/hour	Avg. Period	BACT Control Method	Compliance Method
(EU 001)		0.0024 gr/dscf for PM <sub>10</sub> /PM <sub>2.5</sub> (filterable & condensable)	12.32 lb/hour	runs		201A, and 202
	NO <sub>x</sub>	0.3 lb/ ton of cast steel produced	21.00 lb/hour	Average of 3 one-hour runs	Oxy-Fuel Burners	Initial and Annual Stack Testing EPA Method 7E
	CO	3.5 lb/ton of cast steel produced	245.0 lb/hour	Average of 3 one-hour runs	Good Combustion and Operating Practices	Initial and Annual Stack Testing EPA Method 10
	VOC	0.3 lb/ton of cast steel produced	21.00 lb/hour	Average of 3 one-hour runs	Scrap Management Program, Good Combustion and Operating Practices	Initial and Annual Stack Testing EPA Method 25 or 25A
	SO <sub>2</sub>	0.5 lb/ton of cast steel produced	35.00 lb/hour	30-Day Rolling Avg.	Scrap Management Program, Good Combustion and Operating Practices	CEMS
	Carbon Dioxide Equivalent (CO <sub>2</sub> e)	438 lb/ton of cast steel produced	30,660 lb/hour	12-Month Rolling Avg.	Scrap Management Program, Preheating Scrap and Energy Efficiency Measures	40 CFR Part 98 Methods
	Fl	0.059 lb/ton of cast steel produced	4.13 lb/hour	Average of 3 one-hour runs	DEC (Fume Hood) and Baghouse	Initial and Annual Stack Testing EPA Method 13A/13B
Tundish and Ladle Preheaters & Dryers (routed to Meltshop Baghouse) (EU 001)	PM/PM <sub>10</sub> /PM <sub>2.5</sub>	Routed to Meltshop Baghouse			Canopy Hood and Baghouse, Pipeline Quality Natural Gas as Fuel, Good Combustion and Operating Practices	Initial and Annual Stack Testing EPA Methods 5, 9, 201, 201A, and 202
	NO <sub>x</sub>	0.03 lb/MMBtu		N/A <sup>c</sup>	Low NO <sub>x</sub> Burners	Fuel Usage and Manufacturer Specifications

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Unit 001

Emission Source	Pollutant	BACT Limit	Equiv. lb/hour	Avg. Period	BACT Control Method	Compliance Method
	CO	0.08 lb/MMBtu			Pipeline Quality Natural Gas as Fuel, Good Combustion and Operating Practices	Fuel Usage and AP-42 Emission Factors
	VOC	0.005 lb/MMBtu				
	SO <sub>2</sub>	0.0006 lb/MMBtu				
	CO <sub>2</sub> e	118 lb/MMBtu				Fuel Usage, AP-42 Emission Factors and 40 CFR Part 98 Methods
EAF Modules & Torches (routed to Meltshop Baghouse) (EU0 01)	PM/PM <sub>10</sub> /PM <sub>2.5</sub>	Routed to Meltshop Baghouse			Canopy Hood and Baghouse, Pipeline Quality Natural Gas as Fuel, Good Combustion and Operating Practices	Initial and Annual Stack Testing EPA Methods 5, 9, 201, 201A, and 202
	NO <sub>x</sub>	0.098 lb/MMBtu		N/A <sup>c</sup>	Pipeline Quality Natural Gas as Fuel, Good Combustion and Operating Practices	Fuel Usage and AP-42 Emission Factors
	CO	0.0824 lb/MMBtu				
	VOC	0.0054 lb/MMBtu				Fuel Usage, AP-42 Emission Factors and 40 CFR Part 98 Methods
	SO <sub>2</sub>	0.0006 lb/MMBtu				
	CO <sub>2</sub> e	118 lb/MMBtu				
Ladle & Tundish Skull Cutting (EU 001)	PM/PM <sub>10</sub> /PM <sub>2.5</sub>	Routed to Meltshop Baghouse			Canopy Hood and Baghouse, Pipeline Quality Natural Gas as Fuel, Good Combustion and Operating Practices	Initial and Annual Stack Testing EPA Methods 5, 9, 201, 201A, and 202
	NO <sub>x</sub>	0.098 lb/MMBtu		N/A <sup>c</sup>	Scrap Management Program, Pipeline Quality Natural Gas as Fuel, Good Combustion and Operating Practices	Fuel Usage and AP-42 Emission Factors
	CO	0.0824 lb/MMBtu				
	VOC	0.0054 lb/MMBtu				Fuel Usage, AP-42 Emission Factors and 40 CFR Part 98 Methods
	SO <sub>2</sub>	0.0006 lb/MMBtu				
	CO <sub>2</sub> e	118 lb/MMBtu				

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection A. Emissions Unit 001

Emission Source	Pollutant	BACT Limit	Equiv. lb/hour	Avg. Period	BACT Control Method	Compliance Method
Slag Dumping (routed to Meltshop Baghouse) (EU 001)	PM/PM <sub>10</sub> /PM <sub>2.5</sub>	Routed to Meltshop Baghouse			70% Control Efficiency for dumping inside enclosed space	Manufacturer Specification Sheets
<p>a. Compliance with the CO, VOC, and visible emissions (opacity) standards at the baghouse shall serve as indicators of good combustion.</p> <p>b. Additional emissions testing for filterable PM as well as Visible Emissions from the meltshop baghouse will be conducted in accordance with NSPS, Subpart AAa.</p> <p>c. Compliance in terms of lb/MMBtu shall be demonstrated by emission calculations using AP-42 Emission Factors and the monitoring requirements described in Specific Conditions <b>A.10.</b> and <b>A.11.</b> The Tundish and Ladle Preheaters &amp; Dryers, EAF Modules &amp; Torches, and Ladle and Tundish Skull Cutting do not have a fuel monitor installed; therefore, the emissions from these sources shall be calculated using monthly natural gas consumption prorated based on the maximum design heat input rate for each source. If the permittee to install a volumetric gas flow monitor to measure the fuel usage rate on an hourly basis for any forementioned source than the hourly fuel usage rates shall be averaged on a 3-hour basis.</p>						

[Rules 62-4.070(3), 62-210.200, & 62-212.400, F.A.C.; 40 CFR 60, Subpart AAa; and, Permit No. 1050472-006-AC (PSD-FL-446C), Subsection 3.A., Specific Condition 3]

- b. NSPS Subpart AAa Standards: To comply with the following emission standards, the test methods and procedures in 40 CFR 60.275a shall be used:
- (1) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from an EAF any gases which:
    - i. Exit from a control device and contain particulate matter in excess of 12 mg/dscm (0.0052 gr/dscf);
    - ii. Exit from a control device and exhibit 3 percent opacity or greater; and
    - iii. Exit from a shop and, due solely to the operations of any affected EAF, exhibit 6 percent opacity or greater.
  - (2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit 10 percent opacity or greater.

[Rule 62-204.800(8)(b), F.A.C.; and, 40 CFR 60, Subpart AAa]

- c. Mercury (Hg) Emissions: Hg emissions from the stack shall not exceed 0.0070 lb/hour based on a 7-day run. [Rule 62-4.070(3); and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.A., Specific Condition 6.c.]
- d. Lead (Pb) Emissions: Pb emissions from the meltshop baghouse shall not exceed 0.011 lb/hour. [Rule 62-4.070(3), F.A.C.; and Permit No. 1050472-006-AC (PSD-FL-446C), Subsection 3.A., Specific Condition 4]

**A.13. Excess Emissions Prohibited:** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(1), F.A.C.]



## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection A. Emissions Unit 001

#### Monitoring of Operations

**A.14. SO<sub>2</sub> CEMS.** The permittee shall operate, calibrate, and maintain a continuous monitoring system for continuously monitoring SO<sub>2</sub> in a manner sufficient to demonstrate compliance with the lb/hour and lb/ton of steel permit standards for EU 001, in accordance with Rule 62-210.370, F.A.C.

- a. To determine SO<sub>2</sub> emissions, the owner or operator shall operate, calibrate and maintain a SO<sub>2</sub> CEMS and a flow monitoring system with an automated data acquisition and handling system for measuring and recording volumetric gas flow (in standard cubic feet/hour (scfh)), and SO<sub>2</sub> mass emissions (in lb/hour) discharged to the atmosphere.
- b. The SO<sub>2</sub> CEMS shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The relative accuracy test audits (RATA) required for the SO<sub>2</sub> monitor shall be performed using EPA Method 6 in Appendix A of 40 CFR 60. The SO<sub>2</sub> monitor span values shall be set, considering the allowable methods of operation and corresponding emission standards. The CEMS certification shall be completed within 180 days after initial operation of the unit.

[Rules 62-4.070(3), 62-210.370 & 62-212.400(BACT), F.A.C.; and Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 17]

**A.15. CEMS Data Requirements for SO<sub>2</sub> Emissions Standards.**

*{Permitting Note: The following conditions apply only to the SO<sub>2</sub> lb/hour and lb/ton emissions standards in Specific Condition A.12.}*

- a. **Data Collection.** Except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions shall be monitored and recorded during all operation including startup, shutdown, and malfunction.
- b. **Operating Hours and Operating Days.** An hour is the 60-minute period beginning at the top of each hour. Any hour during which an emissions unit is in operation for more than 15 minutes is an operating hour for that emission unit. A day is the 24-hour period from midnight to midnight. Any day with at least one operating hour for an emissions unit is an operating day for that emission unit.
- c. **Valid Hour.** The CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour.
  - (1) Hours that are **not operating** hours are **not valid** hours.
  - (2) For each operating hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). If less than two such data points are available, there is insufficient data and the 1-hour block average is not valid.
- d. **30-Day Rolling Average.** A 30-day average shall begin at midnight of each operating day and shall be calculated using all Valid Hours from the current operating day and the prior 29 operating days divided by the total tons of steel produced during the same 30 operating days. *{Permitting Note: For purposes of determining compliance with the 30-day rolling CEMS standards, the missing data substitution methodology of 40 CFR Part 75, Subpart D, shall not be utilized. Instead, the 30-day rolling average shall be determined using the remaining hourly-data in the 30-day rolling and periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance reports.}*
- e. **Data Collection:** Each CEMS shall monitor and record emissions during all operations including episodes of startup, shutdown and malfunction.



### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Unit 001

- f. Availability: The quarterly excess emissions report shall identify monitor availability for each quarter in which the unit operated. Monitor availability is determined by dividing the sum of valid hours during the quarter by the sum of operating hours during the quarter.

[Rules 62-4.070(3), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 18 and Permit No. 1050472-004-AC (PSD-FL-446A), Subsection 3.A., Specific Condition 5]

- A.16. Compliance Assurance Monitoring (CAM) Plan**: The permittee shall comply with the CAM plan for operating the melt shop baghouse in Appendix CAM of Section IV. [Rules 62-204.800(12), 62-204.800(11)(b)103, & 62-213.440(1)(b)1.a., F.A.C.; 40 CFR 63, Subpart YYY, & 40 CFR 64; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 19]
- A.17. Bag Leak Detection System**. A bag leak detection system must be installed and continuously operated on all single-stack fabric filters during baghouse operation if the owner or operator elects not to install and operate a continuous opacity monitoring system. In addition, the owner or operator 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). For each bag leak detection system installed according to 40 CFR 60.273a(e), the owner or operator shall initiate procedures to determine the cause of all alarms within 1 hour of an alarm. Except as provided for 40 CFR 60.273a(g), the cause of the alarm must be alleviated within 3 hours of the time the alarm occurred by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the requirements contained in 40 CFR 60.273a(f)(1) through (6). [Rule 62-204.800(8)(b)36., F.A.C.; and, 40 CFR 60.273a(c),(e) & (f)]
- A.18. Scrap Management Plan**. A scrap management plan is contained in Section IV, Appendices, as Appendix SMP. To change any information submitted in the plan, the permittee must submit a revised plan to the Permitting Authority and Compliance Authority within 60 days before the planned change is to be implemented in order to allow time for review and approval by the Department. The revised scrap management plan shall be stored as an electronic file and made available for inspection and printing within at least 3 business days of approval by the Department and included as an attachment to any upcoming Title V applications. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 21]
- A.19. Monitoring of Operations**. In addition to the monitoring requirements contained in 40 CFR 60.274a, the permittee shall maintain monthly records of the following information:
- Use of the energy monitoring and management system.
  - Use of the fabric filter bag leak detection system.
  - Monitor fan motor amperage for DEC/canopy hood evacuation systems.
  - Natural gas usage of the EAF modules.
- [Rule 62-4.070(3), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 22]

#### **Continuous Emissions Monitoring Requirements**

- A.20. Continuous Compliance**. Continuous compliance with the lb/hour and lb/ton of steel permit standards for emissions of SO<sub>2</sub> shall be demonstrated with data collected from the required CEMS starting 30 days after certification of the CEMS. [Rules 62-4.070, & 62-212.400(BACT), F.A.C.; and Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 15]

#### **Test Methods and Procedures**

- A.21. Test Methods**. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Unit 001

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
3A	Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources
5	Method for Determining Particulate Matter Emissions
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
12	Determination of Inorganic Lead Emissions from Stationary Sources
13A/13B	Determination of Total Fluoride Emissions from Stationary Sources
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
25 or 25A	Method for Determining Gaseous Organic Concentrations
29 or 30	Determination of Metals Emissions from Stationary Sources {Note: The method shall be used for sampling Hg and Pb emissions.}
201	Determination of PM <sub>10</sub> Emissions (Exhaust Gas Recycle Procedure)
201A	Determination of PM <sub>10</sub> and PM <sub>2.5</sub> Emissions from Stationary Sources (Constant Sampling Procedure)
202	Method for Determining Condensable Particulate Matter

*{Permitting Note: The permittee shall assume that all PM has a mean particle diameter of 10 microns or less for EPA Test Methods 5 and 202 to be substituted for EPA Test Methods 201A and 202}*

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, F.A.C.; Appendix A of 40 CFR 60; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 16]

- A.22. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

*{Permitting Note: Air compliance test notifications can now be completed online in the Department's Business Portal. To access this online process, go to <http://www.fldepportal.com/go/home> and sign in (or register if you're a new user) from the link in the upper right corner of the page. On the Welcome page select the Submit option, then select Registration/Notification, and then click on Air Compliance Test Notifications. Once in the process, just carefully read the instructions on each screen (and under the Help tabs) to complete the notification.}*

- A.23. Annual Compliance Tests Required.** During each calendar year (January 1st to December 31st), the emissions unit shall be tested to demonstrate compliance with the emissions standards for GHG, NO<sub>x</sub>, CO, PM, VE, VOC, FI and Hg in Specific Condition A.12. [Rule 62-297.310(8), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 13]

*{Permitting Note: See Specific Condition A.25. (Hg Compliance Tests) for additional information. Quarterly Hg tests may be required based on performance test results.}*

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Unit 001

**A.24. Compliance Tests Prior To Renewal.** Except as provided in subparagraph 62-297.310(8)(b)3., F.A.C. (see Condition **TR7.b.(3)** in Appendix TR – Facility-wide Testing Requirements), in addition to the annual compliance tests specified above, compliance tests shall also be performed for GHG, NO<sub>x</sub>, CO, PM, VE, VOC, FI and Hg prior to obtaining a renewed operation permit to demonstrate compliance with the emission limits in Specific Condition **A.12.** [Rules 62-210.300(2)(a) and 62-297.310(8)(b), F.A.C.]

*{Permitting Note: Tests which are only required once during the term of a permit prior to obtaining a renewed permit should be performed roughly five years from the previous test.}*

**A.25. Hg Compliance Tests.** Annual Hg emissions, based on a four quarter rolling averages, utilizing EPA test method 30B for a minimum of a seven days each quarter, shall be used to show compliance with the Hg emission limit given in Specific Condition **A.12.** of this permit. If a total of four consecutive compliance periods, i.e., for four quarterly averages, show that Hg emissions are 75% or less than the Hg limit given in Specific Condition **A.12.**, then going forward only one seven day EPA method 30B test is required each calendar year (January 1<sup>st</sup> to December 31<sup>st</sup>) to show compliance with the Hg limit. If one of these annual tests results in Hg emissions greater than 75% of the Hg limit, then going forward, quarterly testing will be required, until such time as four consecutive quarterly averages show that Hg emissions are 75% or less than the Hg limit given in Specific Condition **A.12.** For informational purposes only, the test reports shall also indicate the lb Hg/ton steel for each test run. [Rules 62-4.070(3) & 62-297.310, F.A.C.; and, Permit No. 1050472-004-AC (PSD-FL-446A), Subsection 3.A., Specific Condition 2]

**A.26. Pb Compliance Tests.** This emission unit shall be tested at the baghouse using EPA Test Methods 12/29 to demonstrate initial compliance with the Pb emission standard given in Specific Condition **A.12.d.** within 90 days of the issuance date of the Final Permit No. 1050472-006-AC (PSD-FL-446C) (as clerked). Tests shall be conducted within 90% of the maximum design flow rate of the baghouse. Upon successful demonstration of compliance with the emission limit, the annual compliance tests and testing upon renewal are not required for Pb unless requested by the Department for good cause. [Rules 62-4.070(3) and 62-297.310(8)(b)&(c), F.A.C.; and Permit No. 1050472-006-AC (PSD-FL-446C), Subsection 3.A., Specific Condition 5]

#### **Recordkeeping and Reporting Requirements**

**A.27. Reporting Schedule.** The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Monthly Operations Summary	Within at least Three Business Days of a Request by the Department	<b>A.30.</b>
Fuel Sulfur Records	Annually and Upon Request by the Department	<b>A.32.</b>
Operational Data	Annually	<b>A.33.</b>
Test Reports	As Required	<b>A.29. &amp; A.35.</b>
SIP Quarterly Reports	30 Days Following the End of Each Calendar-Quarter	<b>A.36.</b>
Notice of Excess Emissions	As Required	<b>A.37.</b>

[Rule 62-213.440(1)(b), F.A.C.]

**A.28. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Unit 001

- A.29. Test Reports.** The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix TR (Common Testing Requirements) of this permit. For each test run, the report shall also indicate the flowrate of the baghouse and the hourly steel production rate during testing. [Rules 62-4.070(3) & 62-297.310(10), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.A., Specific Condition 7]
- A.30. Monthly Operations Summary.** By the 15th calendar day of each month, the permittee shall record the following in a written or electronic log for the EAF for the previous month of operation: fuel consumption, hours of operation, and the foamy slag practice procedures. Information recorded and stored as an electronic file shall be available for inspection and printing within at least three business days of a request by the Department. The fuel consumption shall be monitored in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3), 62-210.200 (PTE) & 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 24]
- A.31. Annual lb/MMBtu Compliance Reports.** The emission sources subject to a lb/MMBtu standard shall be evaluated to demonstrate annual compliance with the emissions standards in Specific Condition A.12. Compliance in terms of lb/MMBtu shall be demonstrated by emission calculations using AP-42 Emission Factors and the monitoring requirements described in Specific Conditions A.10. and A.12. [Rules 62-4.070(3) and 62-297.310(8)(b)1, F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.A., Specific Condition 16]
- A.32. Fuel Sulfur Records.** The permittee shall maintain records of the sulfur content of the natural gas used in the combustion sources. These records shall be submitted to the Compliance Authority on an annual basis and upon request. [Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.A., Specific Condition 17]
- A.33. Operational Data.** The permittee shall record the tons, on a monthly basis, for each activity restricted to a TPY permitted capacity in Specific Condition A.1.b. The permittee shall calculate the 12-month rolling total and submit a compliance report to the Compliance Authority for each calendar year. [Rule 62-4.070(3), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.A., Specific Condition 19]
- A.34. Records of Maintenance.** The owner or operator shall make and maintain records of maintenance on the meltshop equipment sufficient to demonstrate compliance with the operating procedures requirements of Specific Conditions A.1., A.5., A.6. and A.7. [Rule 62-4.070(3), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.A., Specific Condition 25]
- A.35. Emissions Performance Test Reports.** A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(10)(c), F.A.C. and in Appendix TR of this permit. Additionally, each report for tests of shall clearly state the operating flow rate of the baghouse and the production phase during testing. [Rule 62-297.310(8), F.A.C.]
- A.36. SIP Quarterly Report.** Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of SO<sub>2</sub> emissions in excess of the BACT permit standards following the NSPS format in 40 CFR 60.7(c), Subpart A. In addition, the report shall summarize the SO<sub>2</sub> CEMS system monitor availability for the previous quarter. [Rules 62-4.130, 62-204.800, & 62-212.400(BACT), F.A.C., and 40 CFR 60.7]
- A.37. Plant Operation – Problems or Malfunctions.** If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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#### Subsection A. Emissions Unit 001

as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. In case of excess emissions resulting from malfunctions, the permittee shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rules 62-4.130 & 62-210.700(5), F.A.C.]

#### **Other Requirements**

- A.38. NSPS Requirements.** This unit shall comply with the applicable NSPS in 40 CFR 60, including: Subpart A (General Provisions) and Subpart AAa (Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels). The BACT emissions standards for PM are as stringent as, or more stringent than, the PM limit imposed by the applicable NSPS Subpart AAa provision. [Rule 62-204.800(8)(b), F.A.C.; and NSPS 40 CFR 60, Subparts A and AAa]
- A.39. NESHAP Requirements.** This unit shall comply with the applicable NESHAP in 40 CFR 63, including: Subpart A (General Provisions) and Subpart YYYYYY (NESHAP for Area Sources: Electric Arc Furnace Steelmaking Facilities). [Rule 62-204.800(11)(b), F.A.C.; and NSPS 40 CFR 63, Subparts A and YYYYYY]

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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection B. Emissions Unit 002

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
002	Casting Operations, Ladle Repair and Tundish Preheaters, Dryers, Dumping, Repair, and Caster Service Cutting Torches

Emissions Unit 002 consists of the ladle and tundish preheaters, dryers, refractory repairs, and dumping, as well as the emissions sources generated from casting operations and caster torches. The emissions unit contained in this subsection is comprised of the following emissions points:

Point ID	Brief Description
EP09	Caster Vent
EP10	Caster Spray Stack

*{Permitting Note: In accordance with Rule 62-212.400(PSD), F.A.C., this emission unit is subject to BACT determinations for the following pollutants: GHG, CO, NO<sub>x</sub>, PM/PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>2</sub> and VOC.}*

#### **Essential Potential to Emit (PTE) Parameters**

**B.1. Permitted Capacity.** The maximum throughput rate and the maximum design heat input of the following operations and equipment are restricted as listed below:

Operations and/or Equipment	Maximum Throughput rate and/or Design Heat Input Rate
Tundish Drying Station	3.86 MMBtu/hour
Preheating Station	7.71 MMBtu/hour
Caster Service Cutting Torches	0.07-0.73 MMBtu/hour
Ladle Repair Refractory Rate	460 TPY
Tundish Dump Refractory Rate	460 TPY
Tundish Repair Refractory Rate	460 TPY

[Rules 62-4.070(3) & 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-0067-AC (PSD-FL-446ED), Subsection 3.B., Specific Condition 2]

**B.2. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

**B.3. Authorized Fuel.** All combustion sources regulated under EU 002 shall only fire pipeline quality natural gas, with a sulfur content less than 2.0 gr./100 scf. [Rules 62-210.200(PTE) & 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.B., Specific Condition 4]

**B.4. Hours of Operation.** The hours of operation are not limited (8,760 hours per year). [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.B., Specific Condition 6]

#### **Control Technology & Operating Procedures**

**B.5. Good Combustion Practices.** The permittee shall operate and maintain the natural gas combustion sources in accordance with the manufacturer's recommendations and optimize the air-to-fuel ratio through proper tuning and maintenance. [Rules 62-4.070(3) & 62-212.400(10)(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.B., Specific Condition 3]

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection B. Emissions Unit 002

##### Emission Limitations and Standards

###### **B.6. Emissions Standards.**

- a. *EP09 Caster Vent.* Based on a 3-hour average of the total heat input of the equipment venting to EP09, the following emission standards apply to the regulated combustion sources at all times (including periods of startup, shutdown and malfunction):

NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	VOC	GHG (CO <sub>2</sub> e)
lb/MMBtu						
0.1	0.084	0.0006	0.0076	0.0076	0.0055	120

- b. *EP10 Caster Spray Stack.* The following emission standards are applicable to the caster spray stack (EP10) at all times (including periods of startup, shutdown and malfunction):

NO <sub>x</sub>	CO	SO <sub>2</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	VOC
lb/hour						
0.01	0.67	0.03	2.13	0.34	0.04	0.03

- c. *EP 009 Caster Vent Visible Emissions (VE) Standard.* Under normal operations, the caster vent shall not exceed 10 percent (%) opacity.

[Rules 62-4.070(3), 62-210.200, and 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.B., Specific Conditions 5 & 8]

##### Monitoring of Operations

###### **B.7. Monitoring of Operations.** The permittee shall maintain records of the following information:

- The natural gas usage prorated based on heat input capacity for each natural gas combustion source operating without a fuel flow monitor.
- Monthly maintenance procedures (such as routine maintenance, repair, or replacement of component parts).

[Rule 6-24.070(3), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.B., Specific Condition 10 and Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.B., Specific Condition 7]

###### **B.8. Fuel Flow Monitor.** If feasible, the permittee shall install, operate, and maintain a volumetric gas flow monitor to measure the fuel usage rate on an hourly basis for each source that is limited to a lb/MMBtu standard. Otherwise, the total natural gas consumption shall be monitored and the total shall be apportioned among units based upon maximum heat input design capacity. The total natural gas consumption shall be determined through monthly natural gas bills for NSFL. The hourly fuel usage rates shall be averaged on a 3-hour basis. To evaluate a 3-hour average heat input rate, the averaged fuel usage shall be evaluated using the higher heating value of natural gas at 1,020 MMBtu/10<sup>6</sup> scf. [Rules 62-4.070(3) & 62-212.400(10)(BACT), F.A.C.; and Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.B., Specific Condition 13]

##### Test Methods and Procedures

###### **B.9. Test Methods:** Required tests for EP010 shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Method for Determining Particulate Matter Emissions



### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection B. Emissions Unit 002

Method	Description of Method and Comments
6C	Method for Determining Sulfur Dioxide Emissions (Instrumental)
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
25 or 25A	Method for Determining Gaseous Organic Concentrations
202	Method for Determining Condensable Particulate Matter

To calculate the PM<sub>10</sub>/PM<sub>2.5</sub> emissions from EPA Test Method 5/202 for the caster spray stack, the permittee shall use the linear factors of 0.16 for PM<sub>10</sub> and 0.02 for PM<sub>2.5</sub> (16% and 2% of total PM measurements, respectively).

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, F.A.C.; Appendix A of 40 CFR 60; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.B., Specific Condition 12, and Permit No. 1050472-006-AC (PSD-FL-446C), Subsection 3.B., Specific Condition 3]

**B.10. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

**B.11. Annual Compliance Tests Required.** During each calendar year (January 1<sup>st</sup> to December 31<sup>st</sup>), EP09 shall be evaluated to demonstrate compliance with the emissions standards in Specific Condition **B.6.a.** of this subsection by vendor data (emission factors) and emission calculations. In addition, EP09 shall be tested using EPA Method 9 to demonstrate compliance with the emissions standards for VE in Specific Condition **B.6.c.** of this subsection. [Rule 62-297.310(8)(a)1, F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.B., Specific Condition 10 and Permit No. 1050472-004-AC (PSD-FL-446A), Subsection 3.B., Specific Condition 4]

*{Permitting Note: Annual stack testing is not required for EP010. Subsequent compliance tests for EP010 shall be conducted prior to obtaining a renewed Title V air operation permit. See Specific Condition B.12.}*

**B.12. Compliance Tests Prior To Renewal.** Except as provided in subparagraph 62-297.310(8)(b)3., F.A.C. (see Condition **TR7.b.(3)** in Appendix TR – Facility-wide Testing Requirements), in addition to the annual compliance tests specified above, compliance tests shall also be performed for EP10 prior to obtaining a renewed operation permit to demonstrate compliance with the emission limits in Specific Condition **B.6.b.** [Rules 62-210.300(2)(a) and 62-297.310(8)(b), F.A.C.]

#### **Recordkeeping and Reporting Requirements**

**B.13. Compliance Reports.** The permittee shall prepare and submit compliance reports in accordance with the requirements specified in Appendix TR (Common Testing Requirements) of this permit. The report shall also indicate the total heat input rate of the natural gas combustion sources. [Rule 62-297.310(10), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.B., Specific Condition 11]

**B.14. Annual lb/MMBtu Compliance Reports.** The emission sources subject to a lb/MMBtu standard shall be evaluated to demonstrate annual compliance with the emissions standards in Specific Condition **B.6.a.** of this subsection. Compliance in terms of lb/MMBtu will be demonstrated by emission calculations using AP-42

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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#### Subsection B. Emissions Unit 002

Emission Factors and the monitoring requirements described in Specific Condition **B.7.a.** and **B.8.** [Rules 62-4.070(3) and 62-297.310(8)(b)1, F.A.C.; and Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.B., Specific Condition 6]

- B.15. Fuel Sulfur Records.** The permittee shall maintain records of the sulfur content of the natural gas used in the combustion sources. These records shall be submitted to the Compliance Authority on an annual basis and upon request. [Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.B., Specific Condition 12]
- B.16. Operational Data.** The permittee shall record the tons, on a monthly basis, for each activity restricted to a TPY permitted capacity in Specific Condition **B.1.** The permittee shall calculate the 12-month rolling total and submit a compliance report to the Compliance Authority for each calendar year. [Rule 62-4.070(3), F.A.C.; and Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.B., Specific Condition 16]
- B.17. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection C. Emissions Unit 003

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
003	Rolling Operations

Emissions Unit 003 consists of a series of rollers that forms the steel to the appropriate thickness and shape. Rolling mill emissions will vent through the roll mill vent.

*{Permitting Note: In accordance with Rule 62-212.400(PSD), F.A.C., the emission unit above is subject to BACT determinations for the following pollutants: PM/PM<sub>10</sub>/PM<sub>2.5</sub> and VOC. Emissions of PM and VOC are restricted by limiting the oil and grease usage for this unit. Opacity is also restricted as a surrogate for PM emissions. }*

#### **Essential Potential to Emit (PTE) Parameters**

- C.1. Permitted Capacity.** The oil and grease usage for the rolling mill is limited to 108.1TPY, based on a 12-month rolling total. [Rules 62-4.070(3), 62-210.200(PTE) & 62-212.400(10)(BACT), F.A.C.; and, Permit No. 1050472-006-AC (PSD-FL-446C), Subsection 3.C., Specific Condition 2]
- C.2. Hours of Operation.** The hours of operation are not limited (8,760 hours per year). [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.C., Specific Condition 4]

#### **Emission Limitations and Standards**

- C.3. Rolling Mill (EP11) Visible Emissions Standard.** Under normal operations, the rolling mill vent shall not exceed 10% percent opacity. [Rules 62-4.070(3) & 62-212.400, F.A.C.; and Permit No. 1050472-003-AC, Subsection 3.C., Specific Condition 3]

#### **Control Technology & Operating Procedures**

- C.4. Good Industry Practices.** The permittee shall operate and maintain the continuous billet rolling system in accordance with the manufacturer's recommendations and through proper maintenance. [Rules 62-4.070(3) & 62-212.400(10)(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.C., Specific Condition 2]

#### **Test Methods and Procedures**

- C.5. Annual Compliance Tests.** During each calendar year (January 1<sup>st</sup> to December 31<sup>st</sup>), the emissions unit shall be tested to demonstrate compliance with the emissions standards for VE in Specific Condition **C.3**. [Rule 62-297.310(8)(a)1, F.A.C.; and Permit No. 1050472-003-AC, Subsection 3.C., Specific Condition 5]
- C.6. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- C.7. Test Methods.** Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, F.A.C.; and Appendix A of 40 CFR 60; and Permit No. 1050472-003-AC, Subsection 3.C., Specific Condition 7]

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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#### Subsection C. Emissions Unit 003

##### **Recordkeeping and Reporting Requirements**

- C.8. Oil & Grease Records.** The permittee shall maintain records of the monthly usage of oil and grease. These records shall be submitted to the Compliance Authority on an annual basis and upon request. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.C., Specific Condition 5]
- C.9. Records of Maintenance.** The owner or operator shall make and maintain records of maintenance on the rolling mill equipment sufficient to demonstrate compliance with the operating procedures requirements of Specific Condition **C.4.** of this subsection. [Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.C., Specific Condition 6]
- C.10. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection D. Emissions Unit 004

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
004	Scrap Cutting

Natural gas-fired torches are used to cut scrap that is too large for the EAF. Scrap cutting is a manual process that is be done outside.

*{Permitting Note: The emission unit above is subject to BACT determinations for PM/PM<sub>10</sub>/PM<sub>2.5</sub>, in accordance with Rule 62-212.400(PSD), F.A.C.}*

#### Essential Potential to Emit (PTE) Parameters

- D.1. Permitted Capacity.** The total rated heat capacity of the scrap cutting torches is limited to ~~0.50~~ 3.15 MMBtu/hour. [Rules 62-4.070(3) & 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-0047-AC (PSD-FL-446D), Subsection 3.DC, Specific Condition 32]
- D.2. Authorized Fuel.** Pipeline quality natural gas, with a sulfur content less than 2.0 gr./100 scf, will be the only fuel burned for scrap cutting. [Rules 62-210.200(PTE) & 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.D., Specific Condition 2]
- D.3. Hours of Operation.** The hours of operation are not limited (8,760 hours per year). [Rules 62-4.070(3) & 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.D., Specific Condition 5]

#### Control Technology & Operating Procedures

- D.4. Good Combustion Practices.** The permittee shall operate and maintain the scrap cutting units in accordance with the manufacturer's recommendations and optimize the air-to-fuel ratio through proper tuning and maintenance. [Rules 62-4.070(3) & 62-212.400(10)(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.D., Specific Condition 2]

#### Recordkeeping and Reporting Requirements

- D.5. Fuel Sulfur Records.** The permittee shall maintain records of the sulfur content of the natural gas used in the scrap cutting units. These records shall be submitted to the Compliance Authority on an annual basis and upon request. [Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.D., Specific Condition 6]
- D.6. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection E. Emissions Unit 005 & 006

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
005	Raw, Slag and Waste Material Storage and Handling
006	Slag Yard

These materials include: Scrap steel operations (one pile area), alloys (one pile area) and slag/mill scale (one pile area). Each of these materials include emissions from material unloading and loading, transfers, pile wind erosion and the screening and crushing of slag in the slag yard.

*{Permitting Note: The emission units above are subject to BACT determinations for PM/PM<sub>10</sub>/PM<sub>2.5</sub>, in accordance with Rule 62-212.400(PSD), F.A.C.}*

#### **Essential Potential to Emit (PTE) Parameters**

- E.1. Permitted Capacity.** The slag ball crusher is limited to a nominal throughput of 73,584 tons of slag per year, based on a 12-month rolling average. [Rules 62-4.070(3) & 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.E., Specific Condition 2]
- E.2. Hours of Operation.** The hours of operation of are not limited (8,760 hours per year). [Rule 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.E., Specific Condition 5]

#### **Control Technology & Work Practice Standards**

- E.3. PM Control Devices.** PM emissions shall be controlled by use of the following control devices:
- Equipment Enclosure.** All conveyors and conveyor transfer points shall be partially enclosed to limit PM emissions.
  - Water Sprays.** Water sprays for mill scale and slag storage piles and handling equipment shall be applied during dry periods and as necessary to all unconfined emissions points to maintain opacity below 20%. Water sprays and/or surfactants shall also be applied as necessary within the partially covered conveyors and drop points.
  - Drop Points.** All drop heights shall be minimized for the slag yard, storage piles, scrap yard, scrap building, dust loadout, and conveyor transfer points.
  - Minimizing Wind Erosion - Storage Piles.** All storage piles shall be shaped, compacted (if practicable) and oriented to minimize wind erosion.
- [Rules 62-4.070, F.A.C. & 62 212.400(10)(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.E., Specific Condition 6]
- E.4. Storage Pile Operations – Unconfined PM.** The material handling operations are subject to Rule 62-296.320(4)(c), F.A.C., Unconfined Emissions of PM. Reasonable precautions to minimize unconfined PM shall be in accordance with Rule 62-296.320(4)(c), F.A.C.; and, may include, but shall not be limited to, the coating of roads and construction sites used by contractors and re-grassing or watering areas. [Rule 62-296.320(4)(c), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.E., Specific Condition 7]
- E.5. Material Handling Operations.** The permittee is authorized to operate and maintain materials handling systems in a slag yard to loadout a nominal value of: 656,124 TPY of scrap metals, 8,286 TPY of alloys, and 73,584 TPY of slag and 6,132 TPY of mill scale. A truck will be used to unload each material to permanent segregated storage piles. [Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.E., Specific Condition 1]
- E.6. Scrap Building.** Scrap material will primarily be stored: (1) inside a partially enclosed building, and (2) outdoors in piles for ultimate transport to the scrap storage building. The permittee is also authorized to



### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection E. Emissions Unit 005 & 006

operate, install and maintain an endless charging system (ECS) in the scrap building. The ECS shall consist of a conveyor belt that transports the scrap through a tunnel to the EAF. [Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.E., Specific Condition 2]

- E.7. Slag Processing.** The permittee is authorized to operate and maintain one slag ball crusher. [Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.E., Specific Condition 3]

#### **Emission Limitations and Standards**

- E.8. Visible Emissions.** No person shall cause, permit, or allow any visible emissions (5% opacity) from such emissions units. When a conveyor is moved, an opacity of 10% will be allowed. [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B), Subsection 3.E., Specific Condition 3]

#### **Test Methods and Procedures**

- E.9. Annual Compliance Tests.** During each calendar year (January 1<sup>st</sup> to December 31<sup>st</sup>), the emissions unit shall be tested to demonstrate compliance with the emissions standards for visible emissions. [Rule 62-297.310(8)(a)1, F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.E., Specific Condition 10]
- E.10. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- E.11. Test Methods.** Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; Appendix A of 40 CFR 60; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.E., Specific Condition 12]

#### **Recordkeeping and Reporting Requirements**

- E.12. Slag Crusher Records.** The permittee shall maintain records of the amount of crushed slag on an annual basis. These records shall be submitted to the Compliance Authority upon request. [Rule 62-4.070(3), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.E., Specific Condition 13]
- E.13. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection F. Emissions Unit 007

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
007	Silos

The stack exhaust flow rates are approximately: 600 dscfm for the carbon silo; 600 dscfm for each flux silo; and 600 dscfm for the dust silo.

*{Permitting Note: The emission unit above is subject to BACT determinations for PM/PM<sub>10</sub>/PM<sub>2.5</sub>, in accordance with Rule 62-212.400(PSD), F.A.C.}*

#### **Essential Potential to Emit (PTE) Parameters & Emissions Performance Guarantee Records**

**F.1. Bin Filters.** PM emissions from each bin filter of the silos shall not exceed 0.005 gr/dscf. [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.F., Specific Condition 1]

**F.2. Hours of Operation.** The hours of operation are not limited (8,760 hours per year). [Rule 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.F., Specific Condition 3]

**F.3. Records & Replacement Requirements.** Bin filter bags shall only be replaced with bags that meet the design dust outlet specification. Records of the equipment manufacturer's emissions performance guarantee(s) shall be maintained on-site at all times and made available for inspection upon request. [Rule 62-213.440(1)(b)2, F.A.C.]

**F.4. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection G. Emissions Unit 008

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
008	Two Cooling Towers

- G.1. Cooling Towers.** The permittee is authorized to operate and maintain one contact cooling tower (2-celled) and one non-contact cooling tower (4-celled) equipped with drift eliminators with a drift rate of no more than 0.001%. The contact cooling tower will be 45 feet high and designed to achieve a maximum circulating water flow rate of 5,988 gallons per minute. The non-contact cooling tower shall be 45 feet high and designed to operate at a maximum circulating water flow rate of 17,378 gallons per minute. [Rule 62-4.070(3), F.A.C.; and, Permit No. 1050472-004-AC (PSD-FL-446A), Subsection 3.D., Specific Condition 1]
- G.2. Hours of Operation.** The hours of operation are not restricted (8,760 hours per year). [Rule 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.G., Specific Condition 3]

#### **Recordkeeping and Reporting Requirements**

- G.3. Records.** The permittee shall keep records of the design drift rate, as well as regular and preventative maintenance activities. The permittee shall make the records available for inspection by the Department upon request. [Rule 62-213.440(1)(b)2, F.A.C.]
- G.4. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection H. Emissions Unit 009 & 010

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
009	One 1,060-Kilowatt (kW) Emergency Natural Gas-Fired Generators
010	One Emergency Natural Gas-Fired 100 Horsepower (HP) Fire Pump

EU 009 consists of one natural gas emergency generator and EU 010 consists of one natural gas-fired engine-driven emergency fire pump.

The following table provides pertinent details for these engines:

Engine Identification	Engine Brake HP	Startup Date	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Generator	1,421	Jan. 2021	2021	3.0	Siemens	SFGLD480
Fire Pump	100	Jan. 2021	2018	0.7	Zenith Power Products	NA857KN2P 3B10-05

*{Permitting Notes: These Stationary Reciprocating Internal Combustion Engines (RICE) are regulated under 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) adopted in Rule 62.204.800(11)(b), F.A.C. These emergency spark ignition (SI) internal combustion engines (SI ICE) are also regulated under 40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines adopted by reference in Rule 62.204.800(8)(b), F.A.C.}*

#### **Essential Potential to Emit (PTE) Parameters**

**H.1. Emergency Natural Gas-Fired Generators.** The permittee is authorized to operate and maintain one 1,060 kW emergency natural gas fired generators. [Rule 62-210.200(PTE), F.A.C.; and Permit No. 1050472-004-AC (PSD-FL-446A); Subsection 3.E., Specific Condition 1]

**H.2. Emergency Fire Pump.** The permittee is authorized to install, operate, and maintain one 100 HP natural gas fired emergency fire pump engine. [Rule 62-210.200(PTE), F.A.C.; and Permit No. 1050472-004-AC (PSD-FL-446A); Subsection 3.E., Specific Condition 2]

#### **H.3. Restricted Operation.**

- Emergency Situations.** There is no time limit on the use of these engines in emergency situations. [40 CFR 60.4243(d)(1)]
- Maintenance and Testing.** Each emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator 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 owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. [40 CFR 60.4243(d)(2)(i)]
- Other Non-Emergency Situations.** Each 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 and emergency demand response provided in paragraph b., above. 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 60.4243(d)(3)]

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection H. Emissions Unit 009 & 010

**H.4. Fuel Specifications.** The emergency engines may burn only natural gas, with a sulfur content less than 2.0 gr./100 scf. [Rules 62-210.200(PTE) & 62-212.400(BACT), F.A.C.; and Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.H., Specific Condition 5]

**H.5. Operation and Maintenance.** The owner or operator must operate and maintain these engines to achieve the emission standards specified in Specific Condition **H.6.** of this subsection over the entire life of the engine. [40 CFR 60.4234]

#### **Emission Limitations and Operation Requirements**

**H.6. BACT Emission Limits for EU Nos. 009 & 010.**

a. *EU 009.* One 1,060-kW generator

Emergency Engines (> 130 HP)	CO (g/HP-hr) <sup>1</sup>	NO <sub>x</sub> (g/HP-hr)	VOC (g/HP-hr)	PM (lb/MMBtu)	GHG <sup>2</sup> (lb/MMBtu)	Fuel (sulfur)
2006 and later	4.0	2.0	1.0	0.019	117.1	2.0 gr./100 scf

1. g/HP-hr means grams per HP-hour.

2. Compliance with the fuel specifications, CO and PM standards shall serve as indicators of good combustion.

[Rule 62-212.400(BACT), F.A.C.; 40 CFR 60.4233; and Permit No. 1050472-004-AC (PSD-FL-446A), Subsection 3.E., Specific Condition 3.a.]

b. *EU 010.* One Emergency Natural Gas-Fired 100 HP Fire Pump

Emergency Fire Pump (25<HP<130)	CO (g/HP-hr)	NO <sub>x</sub> + HC <sup>1</sup> (g/HP-hr)	VOC (g/HP-hr)	PM (lb/MMBtu)	GHG <sup>2</sup> (lb/MMBtu)	Fuel (sulfur)
2006 and later	2.0	10	0.7	0.019	117.1	2.0 gr./100 scf

1. g/HP-hr means grams per HP-hour; and, NO<sub>x</sub> + HC means nitrogen oxides and hydrocarbons.

2. Compliance with the fuel specifications, CO and PM standards shall serve as indicators of good combustion.

[Rule 62-212.400(BACT), F.A.C.; 40 CFR 60.4233; and Permit No. 1050472-004-AC (PSD-FL-446A), Subsection 3.E., Specific Condition 3.b.]

*{Note: The Nucor Steel Florida Facility has installed a fire pump engine certified to the emission standards for non-emergency spark-ignition natural gas engines, which are less than the corresponding emission standards, excluding CO, for emergency use engines. The CO and VOC standard in Specific Condition H.6.b. is based on the certificate of conformity for the fire pump engine.}*

#### **Monitoring of Operations**

**H.7. Hour Meter.** You must operate and maintain a non-resettable hour meter on this engine. [40 CFR 60.4237(b) & (c)]

#### **Testing and Compliance Requirements**

**H.8. Operation and Maintenance.** The owner or operator must operate and maintain these engines to achieve the emission standards specified in Specific Condition **H.6.** of this subsection over the entire life of the engine. [40 CFR 60.4234]

**H.9. Compliance Requirements.** You must demonstrate compliance according to one of the following options:

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection H. Emissions Unit 009 & 010

- a. *Certified Engine Operated According to Manufacturer.* If you purchased an engine certified to meet the emissions limits in Specific Condition **H.6.** of this subsection, you must demonstrate compliance according to one of the following methods:
- (1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance. [40 CFR 60.4243(b)(1) & 40 CFR 60.4243(a)(1)]
  - (2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you 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, you must conduct an initial performance test to demonstrate compliance with the emission standards specified in Specific Condition **H.6.** of this subsection within 1 year of engine 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 you change emission-related settings in a way that is not permitted by the manufacturer. [40 CFR 60.4243(a)(2)(ii)]  
[Rule 62-213.440, F.A.C.; and, 40 CFR 60.4243(b)(1) & 40 CFR 60.4243(a)(2)]
- b. *Non-Certified Engine.* If you purchased a non-certified engine, you 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, you must conduct an initial performance test to demonstrate compliance with the emission standards specified in Specific Condition **H.6.** of this subsection according to the requirements specified in 40 CFR 60.4244. [40 CFR 60.4243(b)(2) & (b)(2)(i)]

**H.10. Testing Requirement.** If required as noted in Specific Condition **H.9.** of this subsection, the permittee shall test for compliance with the CO, NO<sub>x</sub>, and VOC standards in accordance with 40 CFR 60.4244. Within 60 days of commencing operation, the permittee shall submit manufacturer specification sheets and emission calculations as certification to the Department to determine compliance with the PM and GHG limitations. [Rule 62-4.070(3), F.A.C.; and 40 CFR 60.4244]

**H.11. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

#### **Records and Reports**

**H.12. Compliance Records:** You must keep records of the following information:

- a. All notifications submitted to comply with this permit and all documentation supporting any notification.
- b. Maintenance conducted on the engine.
- c. 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. [Link to eCFR](#)
- d. If the less than or equal to 500HP stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to Specific Condition **H.9.a(2)**, documentation that the engine meets the emission standards.  
[40 CFR 60.4245(a)]

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection H. Emissions Unit 009 & 010

- H.13. Fuel Sulfur Records:** The permittee shall maintain records of the sulfur content of the natural gas used in the emergency generators and fire pump. These records shall be submitted to the Compliance Authority on an annual basis and upon request. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]
- H.14. Hours of Operation Records:** The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter and must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 60.4245(b)]
- H.15. Test Reports:** You must submit a copy of each performance test as conducted in Specific Condition **H.10.** within 60 days after the test has been completed. [40 CFR 60.4245(d)]
- H.16. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

#### General Provisions

- H.17. 40 CFR 60, Subpart A - General Provisions:** The owner or operator shall comply with the applicable requirements of 40 CFR 60, Subpart A - General Provisions, as specified below.

[Link to Subpart A](#) and [Link to Subpart JJJJ](#)

General Provisions Citation	Subject of Citation	Explanation
§ 60.1	General applicability of the General Provisions	
§ 60.2	Definitions	Additional terms defined in § 60.4248.
§ 60.3	Units and abbreviations	
§ 60.4	Address	
§ 60.5	Determination of construction or modification	
§ 60.6	Review of plans	
§ 60.7	Notification and Recordkeeping	Except that § 60.7 only applies as specified in § 60.4245.
§ 60.8	Performance tests	Except that § 60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ.
§ 60.9	Availability of information	
§ 60.10	State Authority	
§ 60.11	Compliance with standards and maintenance requirements	Requirements are specified in subpart JJJJ.
§ 60.12	Circumvention	
§ 60.14	Modification	
§ 60.15	Reconstruction	
§ 60.16	Priority list	
§ 60.17	Incorporations by reference	
§ 60.19	General notification and reporting requirements	

[40 CFR 60.4246 and Table 3]

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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection I. Emissions Unit 011

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
011	Roads

*{Permitting Note: The emission unit above is subject to BACT determinations for PM/PM<sub>10</sub>/PM<sub>2.5</sub>, in accordance with Rule 62-212.400(PSD), F.A.C.}*

#### Work Practice Standards

- I.1. Standard Operating Procedures.** In order to limit the potential to emit emissions of PM from the roadways and grounds the permittee must submit a Fugitive Dust Control Plan (FDCP) no later than 180 days from when the facility becomes operational. The FDCP shall include control methods such as watering, the vacuuming/sweeping paved roads and speed reduction. The final FDCP will also be incorporated into the Title V operating permit. A Fugitive Dust Control Plan is contained in Section IV, Appendices, as Appendix FDCP. To change any information submitted in the plan, the permittee must submit a revised plan to the Permitting Authority and Compliance Authority within 60 days before the planned change is to be implemented in order to allow time for review and approval by the Department. The revised FDCP shall be stored as an electronic file and made available for inspection and printing within at least 3 business days of approval by the Department and included as an attachment to any upcoming Title V applications. [Rules 62-210.200(PTE) & 62-212.400(10)(c), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.I., Specific Condition 1]
- I.2. Sprinkler System.** If a sprinkler system used for the wet suppression of PM fugitive emissions from the facility's roadways and grounds malfunctions, a water truck or other means shall be used to maintain wet suppression of affected zones. Truck traffic shall be halted in any zones for which wet suppression cannot be maintained until the sprinkler system is repaired. [Rules 62-4.070(3) & 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446), Subsection 3.I., Specific Condition 2]

#### Recordkeeping and Reporting Requirements

- I.3. Records.** The permittee shall keep a daily log of road maintenance activities and periodic visual observations and shall make the log available for inspection by the Department upon request. [Rules 62-4.160(7)(a) & 62-4.070(3), F.A.C.]
- I.4. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection J. Emissions Unit 012

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
012	Fuel Storage Tanks

*{Permitting Note: This emission unit is subject to BACT determinations for VOC, in accordance with Rule 62-212.400(PSD), F.A.C. The gasoline storage tank included in this emission unit is also regulated under NESHAP Subpart A (General Provisions) and Subpart CCCCCC (Requirements for Gasoline Dispensing Facilities).}*

#### **Essential Potential to Emit (PTE) Parameters**

- J.1. Permitted Capacity.** The permittee is authorized to maintain one gasoline storage tank and six diesel fuel tanks. The gasoline fuel tank has a capacity of 500 gallons and the six diesel fuel tanks will each be limited to a capacity of 500 gallons. The gasoline throughput rate is limited to 5,500 gallons per year and the diesel throughput rate is limited to 160,000 gallons per year for six diesel fuel tanks combined. [Rules 62-4.070(3) & 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-006-AC (PSD-FL-446C); Subsection 3.D., Specific Condition 2]
- J.2. Hours of Operation.** The hours of operation are not limited (8,760 hours per year). [Rule 62-210.200(PTE), F.A.C.; and, Permit No. 1050472-001-AC (PSD-FL-446); Subsection 3.J., Specific Condition 3]

#### **Recordkeeping and Reporting Requirements**

- J.3. Records.** The permittee shall maintain records of the monthly throughput, in gallons per month, for each fuel. The monthly throughput is defined as the total volume of each fuel loaded into, or dispensed from, all the fuel storage tanks. To determine compliance with the throughput limitations in Specific Condition **J.1**, the permittee shall calculate the 12-month rolling totals and submit a compliance report for each calendar year. These records shall be submitted to the Compliance Authority on an annual basis and upon request. [Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, Permit No. 1050472-003-AC (PSD-FL-446B); Subsection 3.F., Specific Condition 2]
- J.4. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

#### **NESHAP Requirements**

- J.5. NESHAP Requirements.** The gasoline storage tank included in this emission shall comply with the applicable NESHAP in 40 CFR 63, Subpart A (General Provisions) and Subpart CCCCCC (NESHAP Requirements for Gasoline Dispensing Facilities). [NSPS 40 CFR 63, Subparts A and CCCCCC]

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## **SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

### **Subsection K. Emissions Unit 013**

**The specific conditions in this section apply to the following emissions unit:**

<b><u>EU No.</u></b>	<b><u>Emission Unit Description</u></b>
<b><u>013</u></b>	<b><u>Refractory Crusher</u></b>

EU 013 consists of one (1) HCR50 EZ refractory hog crusher. This unit is a source of fugitive PM emissions only.

[Permitting Note: This emissions unit is subject to Rule 62-296.320(4)(c)3, F.A.C. - Unconfined Emissions of PM, and Rule 62-296.711, F.A.C. - Materials Handling, Sizing, Screening, Crushing and Grinding Operations.]

[Permitting Note: Nucor Facility has a firm contract for this unit, including the crusher model. The installation of the new crusher will be completed as soon as the unit is received from the vendor. The unit shall be tested to demonstrate initial compliance with the VE emissions standard as specified in Specific Condition K.5. below.]

#### **Essential Potential to Emit (PTE) Parameters**

**K.1. Permitted Capacity.** This emissions unit is limited to a maximum refractory throughput of 920 tons per year, based on a 12-month rolling average. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and Permit No. 1050472-007-AC (PSD-FL-446D)]

**K.2. Hours of Operation.** The hours of operation are not limited (8,760 hours per year). [Rule 62-210.200(PTE), F.A.C., and Permit No. 1050472-007-AC (PSD-FL-446D)]

#### **Control Technology**

**K.3. Unconfined Particulate Matter.** The refractory crusher is subject to Rule 62-296.320(4)(c), F.A.C., Unconfined Emissions of PM. The following precautions shall be taken for this unit to minimize unconfined PM:

- Water Sprays. Water sprays for refractory crusher shall be applied during dry periods, as necessary, to maintain opacity below 5% (10% when conveyor is moved). Water sprays and /or surfactants shall also be applied as necessary at drop points.
- Drop Points. All drop heights shall be minimized for the refractory crusher.

[Rules 62-4.070 and 62-296.320(4)(c), F.A.C.; and Permit No. 1050472-007-AC (PSD-FL-446D)]

#### **Emission Limitations and Standards**

**K.4. Visible Emissions.** No person shall cause, permit, or allow any visible emissions (5% opacity) from such emissions unit except that at the point where material is being discharged to the hold of a ship from a conveyor system. When the conveyor and/or hatch covering is moved, an opacity of 10% shall be allowed. [Rule 62-296.711(2)(a), F.A.C.]

#### **Test Methods and Procedures**

**K.5. Initial Compliance Tests.** This emissions unit shall be tested to demonstrate initial compliance with the emissions standards for visible emissions in **Specific Condition K.4**. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit. [Rules 62-4.070(3) and 62-297.310(8)(b)1, F.A.C.]

**K.6. Annual Compliance Tests.** During each calendar year (January 1<sup>st</sup> to December 31<sup>st</sup>), this emissions unit shall be tested to demonstrate compliance with the emissions standards for visible emissions in **Specific Condition K.4**. [Rule 62-297.310(8)(a)1, F.A.C.]

**K.7. Test Requirements.** The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in **Appendix D (Common Testing Requirements)** of this permit. [Rule 62-297.310(9), F.A.C.]

### **SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

#### **Subsection K. Emissions Unit 013**

**K.8.** Test Methods. Required tests shall be performed in accordance with the following reference methods.

<b><u>Method</u></b>	<b><u>Description of Method and Comments</u></b>
<u>9</u>	<u>Visual Determination of the Opacity of Emissions from Stationary Sources</u>

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; and Appendix A of 40 CFR 60]

#### **Recordkeeping Requirements**

**K.9.** Refractory Crusher Records. The permittee shall maintain records of the amount of crushed refractory on an annual basis. These records shall be kept on site and submitted to the Compliance Authority upon request. [Rule 62-4.070(3), F.A.C.; and Permit No. 1050472-007-AC (PSD-FL-446D)]

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## **SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

### **Subsection L. Emissions Unit 014**

**The specific conditions in this section apply to the following emissions unit:**

<b><u>EU No.</u></b>	<b><u>Emission Unit Description</u></b>
<b><u>014</u></b>	<b><u>One Nominal 20 kW Diesel-Fired Emergency Generator</u></b>

**EU 014 consists of one nominal 20 kW compression ignition (CI) engine driven emergency generator. The engine fires ultra-low sulfur diesel (ULSD) fuel.**

**The following table provides important details for this engine:**

<b><u>Engine Identification</u></b>	<b><u>Engine Power</u></b>	<b><u>Date Constructed</u></b>	<b><u>Model Year</u></b>	<b><u>Displacement</u></b>	<b><u>Fuel</u></b>	<b><u>Engine Manufacturer</u></b>	<b><u>Generator Serial No.</u></b>
<b><u>Diesel fired Emergency Generator</u></b>	<b><u>20 kW (nominal)</u></b>	<b><u>2024</u></b>	<b><u>2024</u></b>	<b><u>2.5 Liters (4-cyl)</u></b>	<b><u>Diesel</u></b>	<b><u>Generac</u></b>	<b><u>RD020</u></b>

**[Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE, adopted in Rules 62.204.800(11)(b) & (8)(b), F.A.C., respectively. This RICE is not a fire pump. This is a “new” stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at a minor source of HAP, that has been modified, reconstructed, or commenced construction on or after 07/11/2005, manufactured after 04/1/2006, and that has a post-2007 model year. Pursuant to 40 CFR 63.6590(c)(1), this engine complies with the requirements of 40 CFR 63, Subpart ZZZZ, by complying with the applicable requirements contained in 40 CFR 60, Subpart IIII.]**

#### **Essential Potential to Emit (PTE) Parameters**

**L.1. Authorized Fuel.** This stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- Sulfur Content.** The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra low sulfur) for non-road fuel.
- Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.

**[40 CFR 60.4207(b) and 1090.305]**

**L.2. Hours of Operation.**

- Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations. **[40 CFR 60.4211(f)(1)]**
- Maintenance and Testing.** Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator 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 owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. **[40 CFR 60.4211(f)(2)(i)]**
- Non-emergency Situations.** These 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 and emergency demand response provided in paragraph b., above. **[40 CFR 60.4211(f)(3)]**

## **SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

### **Subsection L. Emissions Unit 014**

**L.3. Operation and Maintenance.** The permittee must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, permittee may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in Specific Conditions **L.4.** through **L.6.** over the entire life of the engine. [40 CFR 60.4211(a)]

#### **Emission Limitations**

**L.4. NO<sub>x</sub> + NMHC Emissions.** Emissions of NO<sub>x</sub> plus non-methane hydrocarbons (NMHC) shall not exceed 7.5 grams per kilowatt hour (g/kW-hr) (5.5 grams per horsepower hour (g/HP-hr)). [40 CFR 60.4205(b), 60.4202(a) & 40 CFR 1039, Appendix I, Table 2)]

**L.5. CO Emissions.** Carbon monoxide (CO) emissions shall not exceed 5.5 g/kW-hr (4.0 g/HP-hr). [40 CFR 60.4205(b), 60.4202(a) & 40 CFR 1039, Appendix I, Table 2)]

**L.6. PM Emissions.** Particulate matter (PM) emissions shall not exceed 0.60 g/kW-hr (0.44 g/HP-hr). [40 CFR 60.4205(b), 60.4202(a) & 40 CFR 1039, Appendix I, Table 2)]

#### **Monitoring of Operations**

**L.7. Hour Meter.** The permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

#### **Compliance Requirements**

**L.8. Engine Certification Requirements.** The permittee must comply with the emissions standards in Specific Conditions **L.4.** through **L.6.** by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in Specific Condition **L.9.** [40 CFR 60.4211(c)]

**L.9. Compliance Requirements Due to Loss of Certification.** If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you 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, you 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 you change emission-related settings in a way that is not permitted by the manufacturer. You 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)]

**L.10. Testing Requirements.** In the event performance tests are required pursuant to Specific Condition **L.9.**, the following requirements shall be met:

- a. **Testing Procedures.** The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F.
- b. **NTE Standards.** Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in Specific Conditions **L.4.** through **L.6.**, determined from the following equation:

$$\text{NTE Requirement For Each Pollutant} = (1.25) \times (\text{STD})$$

[40 CFR 60.4212(a) & (c)]

## **SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

### **Subsection L. Emissions Unit 014**

**L.11. Common Testing Requirements.** Unless otherwise specified and if required, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

#### **Recordkeeping and Reporting Requirements**

**L.12. Hours of Operation Records.** The permittee must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

**L.13. Maintenance Records.** To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to Specific Condition **L.9.**, the permittee must keep the following records:

- a. Engine manufacturer documentation and certification indicating compliance with the standards.
- b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
- c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.

[Rule 62-213.440(1), F.A.C.]

**L.14. Testing Notification.** At such time that the requirements of Specific Condition **L.9.** become applicable, the permittee shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1), F.A.C.]

*{Permitting Note: Air compliance test notifications can now be completed online in the Department's Business Portal. To access this online process, go to <http://www.fldeportal.com/go/home> and sign in (or register if you're a new user) from the link in the upper right corner of the page. On the Welcome page select the Submit option, then select Registration/Notification, and then click on Air Compliance Test Notifications. Once in the process, just carefully read the instructions on each screen (and under the Help tabs) to complete the notification.}*

**L.15. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

#### **Other Requirements**

**L.16. 40 CFR 60, Subpart A - General Provisions.** The permittee shall comply with the applicable requirements of 40 CFR 60 Subpart A, General Provisions, as specified below.

<b><u>General Provisions Citation</u></b>	<b><u>Subject of Citation</u></b>
<u>§ 60.1</u>	<u>General applicability of the General Provisions</u>
<u>§ 60.2</u>	<u>Definitions (see also § 60.4219)</u>
<u>§ 60.3</u>	<u>Units and abbreviations</u>
<u>§ 60.4</u>	<u>Address</u>
<u>§ 60.5</u>	<u>Determination of construction or modification</u>
<u>§ 60.6</u>	<u>Review of plans</u>
<u>§ 60.9</u>	<u>Availability of information</u>
<u>§ 60.10</u>	<u>State Authority</u>
<u>§ 60.12</u>	<u>Circumvention</u>
<u>§ 60.14</u>	<u>Modification</u>
<u>§ 60.15</u>	<u>Reconstruction</u>



**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection L. Emissions Unit 014**

<b><u>General Provisions Citation</u></b>	<b><u>Subject of Citation</u></b>
<u>§ 60.16</u>	<u>Priority list</u>
<u>§ 60.17</u>	<u>Incorporations by reference</u>
<u>§ 60.19</u>	<u>General notification and reporting requirements</u>

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