

STATEMENT OF BASIS

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

APPLICANT

The applicant for this project is Nucor Steel Florida, Inc. The applicant's responsible official and mailing address are: Mr. Drew Wilcox, Vice President & General Manager, Nucor Steel Florida, Inc., Nucor Steel Florida, Inc. (Nucor) Facility, 22 Nucor Drive, Frostproof, Florida 33843.

FACILITY DESCRIPTION

The applicant operates the existing Nucor Facility, which is in Polk County at 22 Nucor Drive in Frostproof, Florida. The facility's property line also encompasses a portion of Highlands County.

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.

REGULATED EMISSIONS UNIT IDENTIFICATION NUMBERS AND DESCRIPTIONS

EU No.	Brief Description
001	Meltshop Baghouse & Fugitives
002	Casting Operations, Ladle Repair and Tundish Preheaters, Dryers, Dumping, Repair, and Skull 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

This facility also includes miscellaneous unregulated/insignificant emissions units and/or activities.

APPLICABLE REGULATIONS

Based on the Title V air operation permit revision application completed 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, 014
40 CFR 60, Subpart AAa, Standards of Performance for Steel Plants: Electric Arc	001

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Regulation	EU No(s).
<i>Federal Rule Citations</i>	
Furnaces and Argon-Oxygen Decarburization Vessels	
40 CFR 60, Subpart IIII, Requirements for Stationary Compression Ignition Internal Combustion Engines	014
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
40 CFR 63, Subpart ZZZZ, Requirements for Reciprocating Internal Combustion Engines	009 & 010
40 CFR 63, Subpart YYYYYY, 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	
Rule 62-296.711, F.A.C. - Materials Handling, Sizing, Screening, Crushing and Grinding Operations	013

PROJECT DESCRIPTION

The purpose of this permitting project is to revise the Title V air operation permit for the Nucor Facility to add a new emergency diesel-fired generator and incorporate the changes and requirements established in a concurrently processed air construction Permit No. 1050472-007-AC (PSD-FL-446D). Permit No. 1050472-007-AC (PSD-FL-446D) authorized the following changes: increase the maximum fuel flowrate for use by natural gas-fired service cutting torches; address a slight variation in truck traffic routing due to the addition of a new fabrication shop; and, authorize an installation of one refractory crusher.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Complete application for a concurrent AC & AV projects received: **November 22, 2024**; complete.

Notice of Intent to Issue a concurrent AV & AV draft permits issued: **January 16, 2025**.

Public Notice published: **January 31, 2025**.

Proposed Title V Permit Revision issued: **March 4, 2025**

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 3312 – Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills.

North American Industry Classification System (NAICS): 331110 – Iron and Steel Mills and Ferroalloy Manufacturing.

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HAP: The facility is not identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAM: Compliance Assurance Monitoring (CAM) applies to EU 001 for the Meltshop Baghouse. As required by NESHAP Subpart YYYYYY, the permittee shall monitor the capture system and particulate matter (PM) control device required by the subpart, maintain records, and submit reports according to the CAM requirements in 40 CFR 64. The meltshop baghouse was also required as part of the Best Available Control Technology (BACT) determination for fluoride (Fl) and PM. Therefore, EU 001 is subject to CAM in accordance with 40 CFR 64.2.

GHG: The facility is identified as a major source of greenhouse gas (GHG) pollutants.

PROJECT REVIEW

The purpose of this project is to revise the initial Title V air operation permit No. 1050472-005-AV for the Nucor Facility to add a new emergency diesel-fired generator and incorporate the changes and requirements established in a concurrently processed Permit No. 1050472-007-AC (PSD-FL-446D). The revisions shown below are the only portions of the permit that are open for public comment or challenge. Comments received related to the remainder of the permit will not be addressed during this permitting action. Changes to the permit made as part of this revision are shown in ~~strike-through~~ format for deletions and in double underline format for additions within the draft permit documents. For ease of identification, all changes have also been **highlighted in yellow**.

General Changes:

1. The title page and placard page were updated to reflect this Title V revision application.
2. Table of Contents was updated to add new emissions units (EUs 013 and 014), add Appendix FDCP, and correct page numbers.
3. Minor format changes (*e.g.*, citations, spacing, hyperlinks) were made throughout the permit. These changes do not alter the intent or underlying language of any permit conditions.

Changes authorized by a concurrently processed Permit No. 1050472-007-AC (PSD-FL-446D):

A concurrently processed Permit No. 1050472-007-AC (PSD-FL-446D) authorized the following changes: increase the maximum fuel flowrate for use by natural gas-fired service cutting torches; address a slight variation in truck traffic routing due to the addition of a new fabrication shop; and, authorize an installation of one refractory crusher.. The following changes were made to the permit to incorporate the new and revised requirements:

4. The following conditions were revised to update the total rated heat input capacity for the service cutting torches under EUs 001, 002, and 004: Specific Conditions **A.1.b.** (Permitted Capacity: Meltshop Maximum Throughput and design Heat Input Rates) in *Subsection III.A.*, Specific Condition **B.1.** (Permitted Capacity) in *Subsection III.B.*, and Specific Condition **D.1.** (Permitted Capacity) in *Subsection III.D.*
5. The applicant provided the Department with the copy of the Fugitive Dust Control Plan (FDCP) as required by Specific Condition **I.1.** (Standard Operating Procedures) in *Subsection III.I.* of the permit. This plan is now incorporated as Appendix FDCP in *Section IV* of the permit. As a result of this action, Specific Condition **I.1.** (Standard Operating Procedures) was revised for clarity.

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6. New *Subsection III.K.* was added to the permit to incorporate the requirements for the new EU 013, Refractory Crusher.

Requested by Nucor Florida in Application No. 1050472-008-AV:

7. Nucor Florida is requesting an authorization to install a new 2024 Generac Model RD020 compression ignition (CI) engine driven emergency generator with a nominal rating of 20 kilowatt (kW). The new unit is exempt from air construction permitting requirements since the engine qualified for a categorical exemption per Rule 62.210.300(3)(a)35, F.A.C. Although exempt from air construction permitting, the new generator is subject to the Title V air operation requirements of Chapter 62-213, F.A.C., since the Nucor Facility is an existing Title V source, and the addition of this new unit qualifies as a modification to it. Therefore, a new *Subsection III.I.* was added to the permit to specify the requirements applicable to the operation of the new CI engine driven emergency generator. The new unit will be regulated as **EU 014**. The new engine is subject to 40 CFR 60, Subpart IIII, NSPS for Compression Ignition Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. However, pursuant to 40 CFR 63.6590(c)(1), compliance with the requirements of 40 CFR 63, Subpart ZZZZ is met by meeting the requirements of 40 CFR 60, Subpart IIII.

In addition, the following changes were made to the permit:

8. Applicable Regulations table in *Subsection I.C.* was updated to incorporate the federal and state rule citations applicable for new EUs 013 and 014.
9. Table H, Permit History, was updated.

CONCLUSION

This project revises the initial Title V air operation permit No. 1050472-005-AV, which was effective on **January 17, 2024**. This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.