

**Division of Air Resources
Permit Review Report**

Permit ID: 7-0501-00044/00007

Renewal Number: 1

Modification Number: 2 12/22/2020

Facility Identification Data

Name: NUCOR STEEL AUBURN INC

Address: 25 QUARRY ROAD

AUBURN, NY 13021

Owner/Firm

Name: NUCOR STEEL AUBURN INC

Address: 25 QUARRY RD

PO BOX 2008

AUBURN, NY 13021, USA

Owner Classification: Corporation/Partnership

Permit Contacts

Division of Environmental Permits:

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SCHENECTADY, NY 12306-2014

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Division of Air Resources:

Name: ANDREW C LOFARO

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SYRACUSE, NY 13204

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Air Permitting Contact:

Name: GORDON ELWELL

Address: NUCOR STEEL AUBURN

25 QUARRY RD

AUBURN, NY 13021

Phone:3152584239

Permit Description

Introduction

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

Summary Description of Proposed Project

This is a minor mod

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Attainment Status

NUCOR STEEL AUBURN INC is located in the town of AUBURN in the county of CAYUGA. The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO2)	ATTAINMENT
Ozone*	TRANSPORT REGION (NON-ATTAINMENT)
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.

** NOx has a separate ambient air quality standard in addition to being an ozone precursor.

Facility Description:

Nucor manufactures steel products

Permit Structure and Description of Operations

The Title V permit for NUCOR STEEL AUBURN INC is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process. A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device. [NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

- combustion - devices which burn fuel to generate heat, steam or power
- incinerator - devices which burn waste material for disposal
- control - emission control devices
- process - any device or contrivance which may emit air contaminants that is not included in the above categories.

NUCOR STEEL AUBURN INC is defined by the following emission unit(s):

Emission unit UMATLH - Fugitive emissions from outdoor steel processes including but not limited to (1) raw material & slag handling, separation, cutting, screening, storage & transport, and (2) roadways.

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Process: 004 Fugitive emissions from outdoor steel processes including slag and millscale storage and handling.

Emission unit U0RBF1 - Billet reheating and rolling mill operations, with incidental indoor fugitive emissions.

Emission unit U0RBF1 is associated with the following emission points (EP):
ORBF2

Process: 002 is located at Building RF - Steel billets are reheated in a natural gas fired Reheating Furnace prior to rolling into finished products.

Emission unit U0001B - Melt Shop & Billet Casting operations, including raw material handling, melting in an Electric Arc Furnace (EAF), slag removal, and billet casting, with incidental indoor fugitive emissions.

Emission unit U0001B is associated with the following emission points (EP):
0001B, 0001M, 0001R, 0001S

Process: 001 is located at Building MS - Scrap steel is melted in the Electric Arc Furnace. Other raw materials (including but not limited to tires) are added to impart physical characteristics to the steel. Molten steel is tapped from the furnace and continuously cast into billets.

Emissions from the EAF which occur during melting and refining are primarily captured by Direct Shell Evacuation. Emissions which occur during other phases of the process, (i.e., charging, slagging, and tapping emissions are primarily captured by the EAF canopy hood and closed building roof. The Direct Shell Evacuation and canopy hood convey emissions to a fabric filter baghouse, which exhausts to EP 0001B.

Emissions from the casting equipment are primarily captured via the Casting canopy exhaust. Steam emissions are directly exhausted via EP 0001S (an aggregate of two identical stacks). Fugitive emissions from this operation may also be exhausted via EP 0001M (caster building monovent) as well as EP 0001R (two caster runout roof monovents).

Emission unit UTOWER - Two individual cooling towers which will provide cooling water for the caster (COOL2) and rolling mill (COOL3) separately.

Emission unit UTOWER is associated with the following emission points (EP):
0005A, 0005B, 0006A, 0006B

Process: 003 is located at Building RM - Contact cooling towers provide cooling water for both the caster

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Emission unit UROLLM - Billet rolling operations following reheat furnace. Fugitive VOC emissions from rolling oils are the main emissions from this source.

Process: 005 is located at Building RM - Hot rolling of steel billets following reheat furnace.

Title V/Major Source Status

NUCOR STEEL AUBURN INC is subject to Title V requirements. This determination is based on the following information:

The facility is a major source of carbon monoxide emissions.

Program Applicability

The following chart summarizes the applicability of NUCOR STEEL AUBURN INC with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	YES
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	YES
NESHAP (MACT - 40 CFR Part 63)	YES
NSPS	YES
TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	NO
SIP	YES

NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52, 6 NYCRR 231-7, 231-8) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NSR New Source Review (6 NYCRR 231-5, 231-6) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NESHAP National Emission Standards for Hazardous Air Pollutants (40 CFR 61, 6 NYCRR 200.10) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's).

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MACT Maximum Achievable Control Technology (40 CFR 63, 6 NYCRR 200.10) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

NSPS New Source Performance Standards (40 CFR 60, 6 NYCRR 200.10) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78, 6 NYCRR 201-6) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subpart A thru G, 6 NYCRR 200.10) - federal requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's (hydrofluorocarbons) or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212-3, 220-1.6, 220-1.7, 220-2.3, 220-2.4, 226, 227-2, 228, 229, 230, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

SIP State Implementation Plan (40 CFR 52, Subpart HH, 6 NYCRR 200.10) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

Compliance Status

Facility is in compliance with all requirements.

SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

SIC Code

Description

3312

BLAST FURNACES AND STEEL MILLS

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SCC Codes

SCC or Source Classification Code is a code developed and used" by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information. Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

SCC Code	Description
3-03-009-04	PRIMARY METAL PRODUCTION PRIM METAL PROD-STEEL MFG(SEE 303015 FOR INTEGRATED IRON & STEEL MACT)
3-03-009-31	Electric Arc Furnace: Alloy Steel (Stack) PRIMARY METAL PRODUCTION PRIM METAL PROD-STEEL MFG(SEE 303015 FOR INTEGRATED IRON & STEEL MACT)
3-03-009-33	Hot Rolling PRIMARY METAL PRODUCTION PRIM METAL PROD-STEEL MFG(SEE 303015 FOR INTEGRATED IRON & STEEL MACT)
3-03-009-98	Reheat Furnaces PRIMARY METAL PRODUCTION PRIM METAL PROD-STEEL MFG(SEE 303015 FOR INTEGRATED IRON & STEEL MACT)
3-85-001-01	Other Not Classified COOLING TOWER COOLING TOWER - PROCESS COOLING MECHANICAL DRAFT

Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Service code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE for each contaminant that is displayed represents the facility-wide PTE in tons per year (tpy) or pounds per year (lbs/yr). In some instances the PTE represents a federally enforceable emissions cap or limitation for that contaminant. The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant	PTE lbs/yr	PTE tons/yr	Actual lbs/yr	Actual tons/yr
0NY750-00-0	CARBON DIOXIDE EQUIVALENTS	5431200			
000630-08-0	CARBON MONOXIDE	1471280		633713	
007440-47-3	CHROMIUM	326		42.6	

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007439-92-1	LEAD	1200	140
007439-96-5	MANGANESE	2465	409
0NY210-00-0	OXIDES OF NITROGEN	278850	156644
0NY075-00-0	PARTICULATES	88532	23634
0NY075-00-5	PM-10	81522	23634
007446-09-5	SULFUR DIOXIDE	172330	76495
0NY998-00-0	VOC	98000	7129

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 201-1.10(b)

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item B: Timely Application for the Renewal of Title V Permits -6 NYCRR Part 201-6.2(a)(4)

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Item C: Certification by a Responsible Official - 6 NYCRR Part 201-6.2(d)(12)

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Item D: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.4(a)(2)

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item E: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.4(a)(3)

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item F: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4(a)(5)

It shall not be a defense for a permittee in an enforcement action to claim that a cessation

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or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

Item G: Property Rights - 6 NYCRR 201-6.4(a)(6)

This permit does not convey any property rights of any sort or any exclusive privilege.

Item H: Severability - 6 NYCRR Part 201-6.4(a)(9)

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

Item I: Permit Shield - 6 NYCRR Part 201-6.4(g)

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

Item J: Reopening for Cause - 6 NYCRR Part 201-6.4(i)

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.
- ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the

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emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

Item K: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item L: Federally Enforceable Requirements - 40 CFR 70.6(b)

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through

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properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An emergency occurred and that the facility owner or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated and maintained;
- (3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement. item_02

**Item B: General Provisions for State Enforceable Permit Terms and Condition - 6
NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
FACILITY	ECL 19-0301	67	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 52-A.21	29, 30, 31	Prevention of Significant Deterioration

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U-0001B	40CFR 52-A.21	38, 39, 40, 41, 42, 43, 44, 45, 46	Prevention of Significant Deterioration
U-0001B/0001B	40CFR 52-A.21	1 -16, 1 -17, 1 - 18, 1 -19, 1 -20, 1 -21, 1 -22, 1 -23, 1 -24, 1 -25, 1 - 26	Prevention of Significant Deterioration
U-0RBF1/0RBF2	40CFR 52-A.21	58, 59, 60, 61, 62, 63, 1 -28, 1 -29, 1 -30, 1 -31	Prevention of Significant Deterioration
FACILITY U-0001B/0001B/001	40CFR 60-A 40CFR 60- AAa.272a(a)(2)	1 -3 56	General provisions Steel plants:electric arc furnaces and Argon-Oxygen decarburization vessels - standard for particulate matter
U-0001B/-/001	40CFR 60- AAa.272a(a)(3)	48	Steel plants:electric arc furnaces and Argon-Oxygen decarburization vessels - standard for particulate matter
U-0001B/-/001	40CFR 60-AAa.272a(b)	49	Steel plants:electric arc furnaces and Argon-Oxygen decarburization vessels - standard for particulate matter
U-0001B/-/001	40CFR 60-AAa.274a(b)	50	Steel plants:electric arc furnaces and Argon-Oxygen decarburization vessels - monitoring of operations
U-0001B/-/001/00001	40CFR 60-AAa.274a(d)	52	Steel plants:electric arc furnaces and Argon-Oxygen decarburization vessels - monitoring of operations
U-0001B/-/001	40CFR 60-AAa.274a(h)	51, 1 -11	Steel plants:electric arc furnaces and Argon-Oxygen decarburization vessels - monitoring of operations
U-0001B	40CFR 60-AAa.275a(e)	47	Steel plants:electric arc furnaces and Argon-Oxygen decarburization vessels - test methods and procedures
U-0001B/-/001/00001	40CFR 60-AAa.276a(a)	53	Steel plants:electric arc furnaces and Argon-Oxygen decarburization vessels - recordkeeping and reporting

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FACILITY	40CFR 63-A	1	-4	requirements Subpart A - General Provisions apply to all NESHAP affected sources
FACILITY	40CFR 63-CCCCC	1	-5	Gasoline Dispensing Facilities Area Source NESHAP
FACILITY	40CFR 63-CCCCC.11115	1	-6	General duties to minimize emissions
FACILITY	40CFR 63-CCCCC.11116	1	-7	Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline
FACILITY	40CFR 63- YYYYY.10685(a)	32, 1	-8	Chlorinated plastics, lead and free organic liquids requirements for facilities charging motor vehicles
FACILITY	40CFR 63- YYYYY.10685(b)	33, 1	-9	Requirements for developing a site-specific plan for mercury switches
FACILITY	40CFR 63-ZZZZ	1	-10	Reciprocating Internal Combustion Engine (RICE) NESHAP
FACILITY	40CFR 68	19		Chemical accident prevention provisions
FACILITY	40CFR 82-F	20		Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.6	1		Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	10		Maintenance of equipment.
FACILITY	6NYCRR 201-1.4	68		Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	11		Recycling and Salvage
FACILITY	6NYCRR 201-1.8	12		Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2(a)	13		Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3(a)	14		Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	21, 34, 35		Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.4(a)(4)	15		General Conditions - Requirement to Provide Information
FACILITY	6NYCRR 201-6.4(a)(7)	2		General Conditions - Fees
FACILITY	6NYCRR 201-6.4(a)(8)	16, 2	-2	General Conditions - Right to Inspect
FACILITY	6NYCRR 201-6.4(c)	3		Recordkeeping and Reporting of
FACILITY	6NYCRR 201-6.4(c)(2)	4		Compliance Monitoring Records of

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FACILITY	6NYCRR 201-6.4(c)(3)(ii)	5	Monitoring, Sampling and Measurement Reporting Requirements - Deviations and Noncompliance
FACILITY	6NYCRR 201-6.4(d)(4)	22	Compliance Schedules - Progress Reports
FACILITY	6NYCRR 201-6.4(e)	6	Compliance Certification
FACILITY	6NYCRR 201-6.4(f)(6)	17	Off Permit Changes
FACILITY	6NYCRR 201-7	23	Federally Enforceable Emissions Caps
FACILITY	6NYCRR 201-7.1	24	Emission Capping in Facility Permits
FACILITY	6NYCRR 202-1.1	18, 26	Required emissions tests.
FACILITY	6NYCRR 202-2.1	7	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8, 2 -1	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 211.1	27	General Prohibitions - air pollution prohibited
FACILITY	6NYCRR 211.2	1 -32	General Prohibitions - visible emissions limited.
U-MATLH	6NYCRR 211.2	1 -33	General Prohibitions - visible emissions limited.
U-0001B	6NYCRR 212.6	37	Opacity Limitation
U-SCALE	6NYCRR 212.6(a)	65	General Process Emission Sources - opacity of emissions limited
U-TOWER	6NYCRR 212.6(a)	66	General Process Emission Sources - opacity of emissions limited
FACILITY	6NYCRR 215.2	9	Open Fires - Prohibitions
FACILITY	6NYCRR 216.3	28	Particulate emissions.
FACILITY	6NYCRR 216.4	1 -1	Opacity of emissions.
U-ORBF1/ORBF2	6NYCRR 216.4	1 -27	Opacity of emissions.
FACILITY	6NYCRR 216.5	1 -2	Gaseous emissions.
U-0001B/0001B	6NYCRR 216.5	54	Gaseous emissions.
U-ORBF1/ORBF2	6NYCRR 227-1.3(a)	57	Smoke Emission Limitations.
U-0001B/0001B/001	6NYCRR 231-2.9(a)	55	Emission offset applicability
U-ORBF1/ORBF2/002/00006	6NYCRR 231-2.9(a)	64	Emission offset applicability
U-0001B/0001B	6NYCRR 231-8	1 -13, 1 -14, 1 -15	Mods to Existing Major Facilities in Attainment Areas (PSD)

Applicability Discussion:

Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-0301

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This section of the Environmental Conservation Law establishes the powers and duties assigned to the Department with regard to administering the air pollution control program for New York State.

6 NYCRR 200.6

Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

6 NYCRR 200.7

Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6 NYCRR 201-1.4

This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6 NYCRR 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6 NYCRR 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6 NYCRR 201-3.2 (a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6 NYCRR 201-3.3 (a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6 NYCRR Subpart 201-6

This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

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6 NYCRR 201-6.4 (a) (4)

This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.

6 NYCRR 201-6.4 (a) (7)

This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

6 NYCRR 201-6.4 (a) (8)

This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

6 NYCRR 201-6.4 (c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

6 NYCRR 201-6.4 (c) (2)

This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

6 NYCRR 201-6.4 (c) (3) (ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6 NYCRR 201-6.4 (d) (4)

This condition applies to every Title V facility subject to a compliance schedule. It requires that reports, detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.

6 NYCRR 201-6.4 (e)

Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

6 NYCRR 201-6.4 (f) (6)

This condition allows changes to be made at the facility, without modifying the permit, provided the changes do not cause an emission limit contained in this permit to be exceeded. The owner or operator of the facility must notify the Department of the change. It is applicable to all Title V permits which may be subject to an off permit change.

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6 NYCRR 202-1.1

This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.

6 NYCRR 202-2.1

Requires that emission statements shall be submitted on or before April 15th each year for emissions of the previous calENdAr year.

6 NYCRR 202-2.5

This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

6 NYCRR 211.2

This regulation limits opacity from sources to less than or equal to 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

6 NYCRR 215.2

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

40 CFR Part 68

This Part lists the regulated substances and there applicability thresholds and sets the requirements for stationary sources concerning the prevention of accidental releases of these substances.

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act AmENDments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

Facility Specific Requirements

In addition to Title V, NUCOR STEEL AUBURN INC has been determined to be subject to the following regulations:

40 CFR 52.21

This citation applies to facilities that are subject to Prevention of Significant Deterioration provisions;

ie: facilities that are located in an attainment area and that emit pollutants which are listed in

40 CFR 52.21(b)(23)(i) . The facility is subject to CO, NOx and SO2 limits under this subpart for both the EAF and reheat furnace including lb/hr and lb/ton steel limits.

40 CFR 60.272a (a) (2)

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Applicable regulation.

40 CFR 60.272a (a) (3)

Applicable regulation.

40 CFR 60.272a (b)

Applicable regulation.

40 CFR 60.274a (b)

Applicable regulation.

40 CFR 60.274a (d)

Applicable regulation

40 CFR 60.274a (h)

Requirements for monitoring parameters during stack tests including material weights, heat times, control device log and method 9 data.

40 CFR 60.275a (e)

Regulation specifies requirements for stack testing including EPA reference method, sampling time and volume.

40 CFR 60.276a (a)

Recordkeeping requirements for 40 CFR 60 AAa

40 CFR 63.10685 (a) (1)

facility must maintain compliance with the department approved pollution prevention plan for metallic scrap selection and inspection to minimize the amount of chlorinated plastics, lead, and free organic liquids that is charged to the furnace.

40 CFR 63.10685 (b) (1)

removal of switches in accordance with the department approved site-specific plan for mercury switches and the provisions of 40 CFR 63.10685(b): Mercury requirements.

40 CFR 63.11115

Facility must maintain air pollution control equipment on gasoline dispensing unit.

40 CFR 63.11116

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Spill minimization provisions for gasoline dispensing units.

40 CFR Part 60, Subpart A

This regulation contains the General Provisions of 40 CFR 60. The facility owner is responsible for reviewing these general provisions in detail and complying with all applicable technical, administrative and reporting requirements

40 CFR Part 63, Subpart A

The General Provisions in 40CFR63, Subpart A apply to facilities subject to other National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP) regulations in 40 CFR 63. These rules are also known as MACT rules since they are based on attaining Maximum Achievable Control Technology. Each MACT rule has a table or section that describe which portions of the General Provisions apply to facilities covered by that particular rule and which portions are overridden or do not apply. Note that NESHAP regulations found in 40CFR61 do **not** trigger the general provisions of 40CFR63.

40 CFR Part 63, Subpart CCCCCC

Facility must maintain records demonstrating that monthly thruput is less than 10,000 gallons gasoline.

40 CFR Part 63, Subpart ZZZZ

General condition stating requirements for emergency engines at the facility.

6 NYCRR 201-7.1

The facility has a VOC cap under 201-7.1 in order to cap out of the VOC RACT requirements under 6NYCRR 216 for the EAF. The facility has determined site specific emission factors for the EAF while tracking rolling mill and reheat furnace emissions using factors approved by the department. The facility also accounts for 1.2 tpy VOC from smaller exempt and trivial sources.

6 NYCRR 211.1

This regulation requires that no person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property.

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6 NYCRR 212.6

6 NYCRR 212.6 (a)

This rule specifies an opacity limitation of less than 20% for any six consecutive minute period for all process emission sources.

6 NYCRR 216.3

This section contains the particulate emission limitations for various confined processes in the iron and/or steel industry.

6 NYCRR 216.4

The opacity of emissions from iron and/or steel processes are limited by this section.

6 NYCRR 216.5

General condition stating 216 is superceded by PSD for the facility.

6 NYCRR 227-1.3 (a)

This regulation prohibits any person from operating a stationary combustion installation which emits smoke equal to or greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity.

6 NYCRR 231-2.9 (a)

The provisions of Subpart 231-2 apply to new or modified major facilities. The contaminants of concern state-wide are nitrogen oxides and volatile organic compounds since New York State is located in the ozone transport region and because there are ozone non-attainment areas within the state. In the New York City metropolitan area, carbon monoxide is also a non-attainment contaminant. In addition, particulate matter less than 10 microns in size (PM-10) is a non-attainment contaminant in Manhattan County.

The project emission potential for a proposed source project must be offset with emission reduction credits created or obtained pursuant to 6 NYCRR 231-2.6 or obtained from a state in which New York State has a reciprocal trading agreement in place.

6 NYCRR Subpart 201-7

This regulation sets forth an emission cap that cannot be exceeded by the facility. In this permit that cap is to ensure VOC emissions remain below 50 tpy through emissions tracking.

6 NYCRR Subpart 231-8

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This subpart applies to modifications to existing major facilities in attainment areas (prevention of significant deterioration (PSD)). The permit contains BACT limits for PM, PM-10 and PM 2.5 under this subpart.

Compliance Certification

Summary of monitoring activities at NUCOR STEEL AUBURN INC:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring

FACILITY	29	record keeping/maintenance procedures
FACILITY	30	record keeping/maintenance procedures
FACILITY	31	record keeping/maintenance procedures
U-0001B	38	continuous emission monitoring (cem)
U-0001B	39	continuous emission monitoring (cem)
U-0001B	40	continuous emission monitoring (cem)
U-0001B	41	continuous emission monitoring (cem)
U-0001B	42	continuous emission monitoring (cem)
U-0001B	43	continuous emission monitoring (cem)
U-0001B	44	monitoring of process or control device parameters as surrogate
U-0001B	45	continuous emission monitoring (cem)
U-0001B	46	continuous emission monitoring (cem)
U-0001B/0001B	1-16	continuous emission monitoring (cem)
U-0001B/0001B	1-17	continuous emission monitoring (cem)
U-0001B/0001B	1-18	continuous emission monitoring (cem)
U-0001B/0001B	1-19	continuous emission monitoring (cem)
U-0001B/0001B	1-20	continuous emission monitoring (cem)
U-0001B/0001B	1-21	continuous emission monitoring (cem)
U-0001B/0001B	1-22	continuous emission monitoring (cem)
U-0001B/0001B	1-23	continuous emission monitoring (cem)
U-0001B/0001B	1-24	continuous emission monitoring (cem)
U-0001B/0001B	1-25	continuous emission monitoring (cem)
U-0001B/0001B	1-26	record keeping/maintenance procedures
U-ORBF1/ORBF2	1-28	continuous emission monitoring (cem)
U-ORBF1/ORBF2	1-29	continuous emission monitoring (cem)
U-ORBF1/ORBF2	1-30	continuous emission monitoring (cem)
U-ORBF1/ORBF2	1-31	continuous emission monitoring (cem)
U-ORBF1/ORBF2	58	record keeping/maintenance procedures
U-ORBF1/ORBF2	59	record keeping/maintenance procedures
U-ORBF1/ORBF2	60	continuous emission monitoring (cem)
U-ORBF1/ORBF2	61	continuous emission monitoring (cem)
U-ORBF1/ORBF2	62	continuous emission monitoring (cem)
U-ORBF1/ORBF2	63	continuous emission monitoring (cem)
FACILITY	1-3	record keeping/maintenance procedures
U-0001B/0001B/001	56	monitoring of process or control device parameters as surrogate
U-0001B/-/001	48	monitoring of process or control device parameters as surrogate
U-0001B/-/001	49	monitoring of process or control device parameters as surrogate
U-0001B/-/001	50	monitoring of process or control device parameters as surrogate
U-0001B/-/001/00001	52	record keeping/maintenance procedures

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U-0001B/-/001	1-11	record keeping/maintenance procedures
U-0001B/-/001	51	record keeping/maintenance procedures
U-0001B	47	record keeping/maintenance procedures
U-0001B/-/001/00001	53	record keeping/maintenance procedures
FACILITY	1-4	record keeping/maintenance procedures
FACILITY	1-5	record keeping/maintenance procedures
FACILITY	1-8	record keeping/maintenance procedures
FACILITY	32	record keeping/maintenance procedures
FACILITY	1-9	record keeping/maintenance procedures
FACILITY	33	record keeping/maintenance procedures
FACILITY	1-10	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
U-0001B	36	intermittent emission testing
U-0001B/0001B	1-12	intermittent emission testing
FACILITY	25	intermittent emission testing
FACILITY	7	record keeping/maintenance procedures
U-MATLH	1-33	monitoring of process or control device parameters as surrogate
U-0001B	37	monitoring of process or control device parameters as surrogate
U-SCALE	65	monitoring of process or control device parameters as surrogate
U-TOWER	66	monitoring of process or control device parameters as surrogate
FACILITY	1-1	record keeping/maintenance procedures
U-0RBF1/0RBF2	1-27	monitoring of process or control device parameters as surrogate
FACILITY	1-2	record keeping/maintenance procedures
U-0001B/0001B	54	record keeping/maintenance procedures
U-0RBF1/0RBF2	57	monitoring of process or control device parameters as surrogate
U-0001B/0001B/001	55	work practice involving specific operations
U-0RBF1/0RBF2/002/00006	64	work practice involving specific operations
U-0001B/0001B	1-13	intermittent emission testing
U-0001B/0001B	1-14	intermittent emission testing
U-0001B/0001B	1-15	intermittent emission testing

Basis for Monitoring

Electric ARC Furnace Monitoring

NO_x – The facility has a NO_x limit on the EAF emission unit of 27.32 lb/hr on a 24-hour rolling average basis (2004 PSD permit). This emission unit also has a long term limit of 0.25lb NO_x/Ton steel produced on a 30-day rolling average basis. A NO_x emission limit reduction (from 0.27lb NO_x/Ton Steel) was taken in order to avoid exceeding the PSD threshold of 40 tpy for this pollutant. The EAF has an alternate NO_x limit of 34.15 lb/hr during periods of start-up and shutdown which represents a 25% increase. These periods can be defined as periods of 1-hour following power on/off to the EAF. Compliance with each of these NO_x limits for the EAF is maintained through the use of CEMS which continuously records emissions along with a flow monitor.

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Carbon Monoxide – The facility has a CO limit on the EAF emission unit of 202.4 lb/hr on an 8-hour rolling average basis. The EAF also has 450 ppm (1-hr) and 150 ppm (30-day rolling) limits for CO from the 1983 PSD permit. This emission unit has a long term limit of 2.0 lb CO/Ton steel on a 30-day rolling average basis. As part of this permit modification, an ambient impact assessment was performed for this pollutant and found to be acceptable. The facility also has an alternate CO limit of 253.0 lb/hr during periods of start-up and shutdown of the EAF which represents a 25% increase. These periods can be defined as periods of 1-hour following power on/off to the EAF. Compliance with each of these Carbon Monoxide limits for the EAF is maintained through the use of CEMS which continuously records emissions along with a flow monitor. A BACT analysis was performed for this pollutant and it was deemed that no further control is economically feasible at this time.

Sulfur Dioxide – The facility has an SO₂ limit on the EAF emission unit of 25.3 lb/hr on a 24-hour rolling average basis. This emission unit has a long term limit of 0.25 lb SO₂/Ton steel on a 30-day rolling average basis. As part of this permit modification, an ambient impact assessment was performed for this pollutant and found to be acceptable. The 25% emissions limit increase during startup/shutdown was removed as part of this permit mod as the department deemed the limit increase unnecessary. SO₂ emissions are largely determined by materials and not products of combustion. Compliance with each of these Sulfur Dioxide limits for the EAF is maintained through the use of CEMS which continuously records emissions. As part of the BACT analysis for this pollutant, different carbon sources (coal) were reviewed to examine lower sulfur possibilities. Switching to lower sulfur carbon sources would exceed the threshold for economic feasibility under BACT.

Particulate Matter – The facility has a Method 5D total particulate limit of 0.0018 gr/dscf for the EAF. This limit is enforced through stack testing conducted at least once per permit term. This limit was determined using the BACT Clearinghouse database as guidance. The EAF exhaust is sent through a positive pressure baghouse which is considered BACT for particulate matter control. As part of this permit modification, an ambient impact assessment was performed for this pollutant and found to be acceptable.

- Note: as part of this permit modification, the lead surrogate PM limit from the 2004 PSD permit was reduced from 0.002gr/dscf to 0.0018 gr/dscf to match the particulate limit established under PM BACT for this permit to maintain consistency. This PM as a lead surrogate sampling requirement is also once a permit term.

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PM-10 – The facility has a total PM-10 limit (filterable plus condensable) of 0.0043 gr/dscf for the EAF. This limit is enforced through stack testing conducted at least once per permit term. This limit was determined using the BACT Clearinghouse database as guidance as well as speciated PM data from another Nucor plant (Birmingham) which showed that PM 2.5 is roughly 93% of PM-10. This site was selected as they have a negative pressure traditional stack which allows them to run the cyclones required under Method 201A for PM10/PM 2.5.

Nucor Auburn's EAF exhaust is sent through a positive pressure baghouse which is considered BACT for PM-10 control. Due to the nature of the baghouse configuration (positive pressure baghouse with a monovent exhaust) it is necessary to use reference method 5D for the filterable portion of PM sampling. It is not possible to sample this style of baghouse with Method 201A. Reference Method 202 is used for sampling the condensable portion of PM-10 emissions. As part of this permit modification, an ambient impact assessment was performed for this pollutant and found to be acceptable.

- Note: Nucor has submitted information regarding SO₂ biases in the condensable particulate matter sampling method (EPA RM 202) as indicated in the Federal Register as of December 21, 2010. This information is available for review in the Department's files.

PM 2.5 - The facility has a total PM-2.5 limit (filterable plus condensable) of 0.0040 gr/dscf for the EAF. This limit is enforced through stack testing conducted at least once per permit term. This limit was proposed by the facility based on the BACT Clearinghouse for other EAF Facilities and historic method 5 PM sampling along with method 202 for condensables.

Nucor Auburn's EAF exhaust is sent through a positive pressure baghouse which is considered BACT for PM-2.5 control. Due to the nature of the baghouse configuration (positive pressure baghouse with a monovent exhaust) it is necessary to use reference method 5D for the filterable portion of PM sampling. It is not possible to perform emissions sampling on this style of baghouse using Method 201A. Reference Method 202 is used for sampling the condensable portion of PM-10 emissions. As part of this permit modification, an ambient impact assessment was performed for this pollutant and found to be acceptable.

Reheat Furnace Monitoring: - Not part of the PSD Permit Modification; No Control Technology review for this permit mod.

NO_x – The reheat furnace emission unit has a NO_x limit of 9.85 lb/hr on a 24-hour rolling average basis (2004 PSD permit) and a 24-hr rolling average NO_x limit of 0.075 lb/MMBtu

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(2004 PSD permit). The reheat furnace has an alternate NO_x limit of 12.3 lb/hr during periods of start-up and shutdown which represents a 25% increase. These periods can be defined as periods of 4-hours following natural gas on/off to the furnace. Compliance with each of these NO_x limits for the reheat furnace is maintained through the use of CEMS which continuously records emissions along with natural gas flow.

Carbon Monoxide – The facility has a CO limit on the reheat furnace emission unit of 15.0 lb/hr on an 8-hour rolling average basis. This emission unit has a 24-hr rolling average limit of 0.084 lb/MMBtu. The facility also has an alternate CO limit of 18.75 lb/hr during periods of start-up and shutdown of the reheat furnace which represents a 25% increase. These periods can be defined as periods of 4-hours following natural gas on/off to the reheat furnace. Compliance with each of these Carbon Monoxide limits for the reheat furnace is maintained through the use of CEMS which continuously records emissions along with natural gas flow.

Sulfur Dioxide – The facility has an SO₂ limit on this emission unit of 0.11 lb/hr on a 24-hour rolling average basis. This emission unit has a 0.0006 lb SO₂/MMBtu on a 24 hour rolling average basis. The 25% emissions limit increase during startup/shutdown was removed as part of this permit mod as the department deemed the limit increase unnecessary and to maintain consistency with the EAF startup/shutdown limits. SO₂ emissions are largely determined by materials and not products of combustion. Compliance with each of these Sulfur Dioxide limits for the reheat furnace is demonstrated using AP-42 factors along with natural gas consumption.

Other Monitoring:

VOCs – The facility capped out of 216.5 (a)(2) which is VOC RACT for Iron and/or Steel processes by ensuring VOC emissions are below 50 tpy annually. Stack testing was performed in 2014 to establish a site specific VOC emission factor for the EAF. AP-42 Factors are used for the reheat furnace while purchase records are used for rolling mill oil VOC emissions.

Opacity – Facility performs opacity observations at various locations throughout the facility.

40CFR 60.272a(a)(3) – 6% melt shop roof opacity limit with daily observations. Allows the facility to be exempt from installing a static pressure monitor inside the EAF.

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40CFR 60.272a(b) – 10% opacity limit on baghouse dust handling system with weekly observations at the highest point of opacity from the hoppers and dust conveying and transfer system/equipment.

40 CFR 60.272a(a)(2) – 3% Baghouse Exhaust opacity limit with daily observations

6NYCRR 216.4 - Fugitive emissions from the EAF during tapping: 40%
Fugitive emissions during charging of the EAF: 20%
All other iron and/or steel industry sources: 20%

Observations made upon Department request as these locations have not previously had an opacity issue.

6NYCRR 216.4 – ORBF2 – 20% opacity limit on reheat furnace stack with semiannual observations. This is a natural gas fired source.

6 NYCRR 212.6 (a) – U-Tower – Opacity limit for two contact cooling towers with observations made upon department request.

6NYCRR 211.2 – (20% opacity limit) - Daily opacity observations of slag handling and transport systems while millscale processing and stockpile observations made upon department request.

- This condition used to be under 6NYCRR 216, however the opacity limits in 216 do not apply to open air sources. This condition was moved to 6NYCRR 211.2 to keep it in the permit. The nature of the slag and millscale processes has a tendency to create dust issues.

40CFR 60.274a(b) - Nucor shall check and record the amperes for both baghouse fan motors and the fan damper positions on a once-per-shift basis. Nucor shall operate the fans such that the motor amperes and damper positions are maintained at the levels documented during the most recent compliant particulate stack test. Operation of either baghouse fan motor amperes at values exceeding +/-15% of the levels established during the most recent compliant particulate stack test may be considered unacceptable operation and maintenance of the facility. Operation at such values shall be reported to the Department and EPA semiannually.

- Nucor documents the baghouse fan motor amperage at each stack test and maintains fan levels within +/- 15% of these values.

40CFR 60.274a(d) - The owner or operator shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in duct-work or hoods, flow constrictions

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caused by dents or accumulated dust in ductwork and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

-Nucor performs these inspections during scheduled outages on a monthly basis at a minimum.

40 CFR 63, Subpart CCCCCC - NUCOR shall maintain records which demonstrate that the throughput for the gasoline dispensing facility is less than the 10,000-gallon per month. In accordance with 63.11116(b), NUCOR must make records of gasoline throughput available within 24 hours of a request by the Administrator.

40 CFR 63 Subpart YYYYYY – removal of switches in accordance with the department approved site-specific plan for mercury switches and the provisions of 40 CFR 63.10685(b): Mercury requirements.

For the production of steel other than leaded steel, you must maintain compliance with the department approved pollution prevention plan for metallic scrap selection and inspection to minimize the amount of chlorinated plastics, lead, and free organic liquids that is charged to the furnace. You must operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the permitting authority within 60 days following disapproval of a plan. You may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the permitting authority.

- The facility performs annual inspections of the scrap yards from which they purchase from for both quality assurance and environmental purposes.

40CFR 63, Subpart ZZZZ – Facility performs maintenance required for the emergency generator on site at the intervals specified in condition 1-8.

40CFR 52.21, Subpart A - Monitoring Description: The facility shall only charge scrap to the electric arc furnace at a rate not to exceed 110 tons per hour for each batch, calculated daily.

-Nucor monitors scrap charged to furnace per 2004 PSD permit.

Production – Production limits of 665,000 billet tons per year and 575,000 billet tons per year for the EAF and Reheat Furnace respectively were originally set in the 2004 PSD permit to limit annual NOx potential emissions for determining ERCs required for offsets for the project.

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