AIR QUALITY PERMIT

Permit No.
3312-075-0024-P-01-0

Effective Date
December 29, 2010

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Rules, Chapter 391-3-1, adopted pursuant to and in effect under that Act,

Facility Name: **Osceola Steel Company**

Mailing Address: P.O. Box 799
Adel, Georgia 31620

is issued a Permit for the following:

To construct and operate a micro steel mill capable of producing 430,000 tons of scrap steel annually. The proposed micro steel mill project will include one electric arc furnace, two horizontal ladle Preheaters, one vertical ladle heating stack, two Tundish preheaters, one reheat furnace, two casting machine torches and three cooling towers. Natural gas will be fired in the electric arc furnace, the reheat furnace, both horizontal ladle and Tundish Preheaters, vertical ladle heating stack and the casting machine torches.

Facility Location: 475 Osceola Road
Adel, Georgia 31620 (Cook County)

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit.

This Permit may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 19537 dated March 16, 2010; any other applications upon which this Permit is based; supporting data entered therein or attached thereto; or any subsequent submittals or supporting data; or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **23** pages.

[Signed]
Director
Environmental Protection Division

Emission Units		Air Pollution Control Devices	
ID No.	**Description**	**ID No.**	**Description**
EAF	Electric Arc Furnace	BH1	Baghouse
VLPH1	Vertical Ladle Heater		
TPH1	Tundish Preheater 1		
TPH2	Tundish Preheater 2		
CMT1	Casting Machine Torch 1		
CMT2	Casting Machine Torch 2		
RHF	Reheat Furnace	N/A	N/A
HLPH1	Horizontal Ladle Preheat	N/A	N/A
HLPH2	Horizontal Ladle Preheat		
CT1	Cooling Tower No. 1	N/A	N/A
CT21	Cooling Tower No. 2 (1)	N/A	N/A
CT22	Cooling Tower No. 2 (2)	N/A	N/A
CT3	Cooling Tower 3	N/A	N/A
LS	Lime Silo	BH2	Baghouse
CS	Carbon Silo	BH3	Baghouse
CC1	Continuous Casting		
Fugitive Emission Sources			
SP	Slag Pile	N/A	N/A
SD, LD, SS, LS	Paved Roadways	N/A	N/A

1. General Requirements

1.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate this source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection or surveillance of the source.

1.2 The Permittee shall not build, erect, install or use any article, machine, equipment or process the use of which conceals an emission which would otherwise constitute a violation of an applicable emission standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged into the atmosphere.

1.3 The Permittee shall submit a Georgia Air Quality Permit application to the Division prior to the commencement of any modification, as defined in 391-3-1-.01(pp), which may result in air pollution and which is not exempt under 391-3-1-.03(6). Such application shall be submitted sufficiently in advance of any critical date involved to allow adequate time for review, discussion, or revision of plans, if necessary. The application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity and pollutant emission rates of the plant before and after the change, and the anticipated completion date of the change.

1.4 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and shall be retained for at least five (5) years following the date of entry.

1.5 In cases where conditions of this Permit conflict with each other for any particular source or operation, the most stringent condition shall prevail.

1.6 The Permittee shall comply with the 40 CFR 63, Subpart A “General Provisions” and 40 CFR 63 Subpart YYYYY “National Emissions Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities for the electric arc furnace (EAF) steelmaking facility”.
[40 CFR 63 Subparts A and YYYYY]

1.7 The Permittee shall comply with all applicable provisions of the New Source Performance Standards (NSPS) as found in 40 CFR 60 Subpart A - "General Provisions" and 40 CFR 60 Subpart AAa - " Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983," for operation of the Electric Arc Furnace (Source Code: EAF).
[40 CFR 60 Subparts A and AAa]

2. Allowable Emissions

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

2.1 The Permittee shall construct and operate the source or modification that is subject to Georgia Rule 391-3-1-.02(7) in accordance with the application submitted pursuant to that rule. If the Permittee constructs or operates a source or modification not in accordance with the application submitted pursuant to than rule or with the terms of any approval to construct, the Permittee shall be subject to appropriate enforcement action.
[40 CFR 52.21(r)(1)]

2.2 Approval to construction shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Director may extend the 18-month period upon a satisfactory showing that an extension is justified.
[40 CFR 52.21(r)(2)]

2.3 The Permittee shall prepare and submit an initial Title V Operating Permit Application for the operation of the Osceola Steel Company facility in accordance with 40 CFR 70.5 within 12 months after commencing operation. The Permittee must address 40 CFR Part 64 "Compliance Assurance Monitoring" applicability in its initial Title V Operating Permit Application.
[40 CFR Part 64 and 40 CFR Part 70]

2.4 For purposes of this Permit: Electric Arc Furnace (Source Code: EAF), Vertical Ladle Heater, (Source Code: VLPH1), Tundish Preheaters (Source Codes: TPH1 and TPH2), and Casting Machine Torches (Source Codes: CMT1 and CMT2), Baghouse 1 (APCD Code: BH1) share a common stack, Stack No. BH1.
[40 CFR 52.21(j)]

2.5 The Permittee is prohibited from the production of leaded steel at all times.
[40 CFR 52.21(j)]

2.6 The Permittee must prepare and implement a 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. The Permittee must submit the scrap pollution prevention plan to the Division for approval 60 days prior to the commencement of operation. The Permittee must operate the electric arc furnace (Source Code: EAF) in accordance with the Division-approved plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency within the plan identified by Division within 60 days following disapproval of a plan. The Permittee may request approval to revise the plan and may operate according to the revised plan unless and until the permitting authority disapproves the revision. A copy of the plan must be made available onsite at all times, and training must be provided on the plan's requirements to all plant personnel with materials acquisition or inspection duties. Each plan must include the following information

a. Specifications that scrap materials must be depleted (to the extent practicable) of undrained used oil filters, chlorinated plastics, and free organic liquids at the time of charging to the furnace.

b. A requirement in the scrap specifications for removal (to the extent practicable) of lead-containing components (such as batteries, battery cables, and wheel weights) from the scrap.

c. Procedures for determining if the requirements and specifications outlined in paragraph (a)(1) of 40 CFR 63.10685 are met (such as visual inspection or periodic audits of scrap providers) and procedures for taking corrective actions with vendors whose shipments are not within specifications.

The requirements of paragraph (a)(1) of 40 CFR 63.10685 do not apply to the routine recycling of baghouse bags or other internal process or maintenance materials in the furnace. These exempted materials must be identified in the pollution prevention plan.
[40 CFR 52.21 and 40 CFR 63.10685(a)]

2.7 The Permittee shall not charge to a furnace metallic scrap that contains scrap from motor vehicle bodies, engine blocks, oil filters, oily turnings, machine shop borings, transformers or capacitors containing polychlorinated biphenyls, lead-containing components, chlorinated plastics, or free organic liquids. This restriction does not apply to any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed or cleaned to the extent practicable such that the materials do not include lead components, chlorinated plastics, free organic liquids or to motor vehicle scrap that is charged to recover the chromium or nickel content if it is certified in the notification of compliance status that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches.
[40 CFR 52.21 and 40 CFR 63.10685(b)]

2.8 The Permittee shall only fire pipeline quality natural gas in all combustion sources located within the facility. Sulfur content of pipeline quality natural gas shall not exceed 0.5 grains per 100 standard cubic feet.
[40 CFR 52.21(j) and 391-3-1-.02(2)(g)(subsumed)]

2.9 The melting of steel shall be limited in the electric arc furnace (Source Code: EAF) such that the total amount of steel produced does not exceed 60 tons of steel per hour or 430,000 tons of steel during any twelve month period.
[40 CFR 52.21(j)]

2.10 The Permittee shall install and operate, as BACT for CO on Electric Arc Furnace (Source Code: EAF), a Direct Evacuation Control (DEC) system at all times the Electric Arc Furnace is in operation.
[40 CFR 52.21(j)]

2.11 The Permittee shall install and operate, as BACT for NOx on Electric Arc Furnace (Source Code: EAF), Low NOx Burners and use Good Combustion and Operating Practices at all times the Electric Arc Furnace is in operation.
[40 CFR 52.21(j)]

2.12 The Permittee shall install and operate, as BACT for PM and PM_{10} on Electric Arc Furnace (Source Code: EAF), a fabric filter (baghouse) to be in operation at all times the Electric Arc Furnace is in operation.
[40 CFR 52.21(j)]

2.13 The Permittee shall install and operate on Electric Arc Furnace (Source Code: EAF), the use of low-sulfur, carbon-based feed and charging materials containing less than 2.5 percent sulfur by weight during all times the Electric Arc Furnace is in operation.
[Avoidance of 40 CFR 52.21(j)]

2.14 The Permittee shall install and operate, as BACT for CO on Reheat Furnace (Source Code: RHF), the use of Good Combustion and Operating Practices as outlined in Condition 5.8 at all times the Reheat Furnace is in operation.
[40 CFR 52.21(j)]

2.15 The Permittee shall install and operate, as BACT for NOx on Reheat Furnace (Source Code: RHF), Ultra Low NOx Burners and use Good Combustion and Operating Practices as outlined in Condition 5.8 at all times the Reheat Furnace is in operation.
[40 CFR 52.21(j)]

2.16 The Permittee shall install and operate, as BACT for PM and PM_{10} on Reheat Furnace (Source Code: RHF), the use of Good Combustion and Operating Practices as outlined in Condition 5.8.
[40 CFR 52.21(j)]

2.17 The Permittee shall install and operate on Reheat Furnace (Source Code: RHF), the use of Good Combustion and Operating Practices as outlined in Condition 5.8.
[Avoidance of 40 CFR 52.21(j)]

2.18 The Permittee shall install and operate, as BACT for CO on all sources in the Small Combustion Sources Equipment Group (Source Codes: HLPH1, HLPH2, VLPH1, TPH1, TPH2, CMT1 and CMT2), the use of Good Combustion and Operating Practices as outlined in Condition 5.8.
[40 CFR 52.21(j)]

2.19 The Permittee shall install and operate, as BACT for NOx on all sources in the Small Combustion Sources Equipment Group (Source Codes: HLPH1, HLPH2, VLPH1, TPH1, TPH2, CMT1 and CMT2), Low NOx Burners and use Good Combustion and Operating Practices as outlined in Condition 5.8 at all times the Small Combustion Sources are in operation.
[40 CFR 52.21(j)]

2.20 The Permittee shall install and operate, as BACT for PM, PM_{10} and $PM_{2.5}$ on all sources in the Small Combustion Sources Equipment Group (Source Codes: HLPH1, HLPH2, VLPH1, TPH1, TPH2, CMT1 and CMT2), the use of Good Combustion and Operating Practices as outlined in Condition 5.8.
[40 CFR 52.21(j)]

2.21 The Permittee shall install and operate on all sources in the Small Combustion Sources Equipment Group (Source Codes: HLPH1, HLPH2, VLPH1, TPH1, TPH2, CMT1 and CMT2), the use of Good Combustion and Operating Practices as outlined in Condition 5.8.
[Avoidance of 40 CFR 52.21(j)]

2.22 The Permittee shall install and operate on the roadways within the boundaries of the Osceola Steel Company facility techniques such outlined in Condition 3.2 to control particulate matter emissions from the roadways at all times the roadways are in use.
[40 CFR 52.21(j)]

2.23 The Permittee shall install and operate for slag handling operations (Source Code: SP) within the boundaries of the Osceola Steel Company, techniques outlined in Condition 3.2 to control particulate matter emissions from the slag handling operation at all times the slag piles are in use.
[40 CFR 52.21(j)]

2.24 The Permittee shall install and operate, as BACT for PM on Cooling Towers (Source Codes: CT1, CT21, CT22 and CT33), the use of high density mist eliminators at all times the Cooling Towers are in operation.
[40 CFR 52.21(j)]

2.25 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from Electric Arc Furnace (Source Code: EAF), any gases which:

a. Contain Carbon Monoxide (CO) in excess of 2.0 lb/ton of steel processed on an 3-hour average basis.
[40 CFR 52.21(j)]

b. Contain Nitrogen Oxides (NOx) in excess of 0.35 lb/ton of steel processed on a 3-hour average basis.
[40 CFR 52.21(j)]

c. Contain Filterable Particulate Matter (PM/PM_{10}) in excess of 0.0018 gr/dscf on a 3-hour average, Condensable Particulate Matter (PM/PM_{10}) in excess of 0.0008 gr/dscf on a 3-hour average and Total Particulate Matter (PM/PM_{10}) in excess of 0.0026 gr/dscf on a 3-hour average basis.
[40 CFR 52.21(j), 40 CFR 60.272a (subsumed) and 391-3-1-.02(2)(d)(2) (subsumed)]

d. Contain Sulfur Dioxide (SO_2) in excess of 0.18 lb/ton on a 3-hour basis.
[Avoidance of 40 CFR 52.21(j)]

e. Exhibit greater than 6 percent opacity exiting from a shop, due solely to the operations of the EAF.
[40 CFR 60.272a and 391-3-1-.02(2)(d)(3)]

f. Exhibit greater than 3 percent opacity exiting from a control device.
[40 CFR 60.272a and 391-3-1-.02(2)(d)(3)]

g. On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, The Permittee shall not cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit 10 percent opacity or greater.
[40 CFR 60.272a and 391-3-1-.02(2)(b) (subsumed)]

The limits stated in a, b, c and d of this permit condition apply during all times of operation, including startup, shutdown, and malfunction.

2.26 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from Reheat Furnace (Source Code: RHF), any gases which

a. Contain Carbon Monoxide (CO) in excess of 0.0035 lb/MMBtu on an 3-hour average basis.
[40 CFR 52.21(j)]

b. Contain Nitrogen Oxides (NOx) in excess of 0.075 lb/MMBtu on a 3-hour average basis.
[40 CFR 52.21(j)]

c. Contain Particulate Matter (PM) in excess of 0.0076 lb/MMBtu.
[40 CFR 52.21(j) and 391-3-1-.02(2)(d)(2) (subsumed)]

d. Contain Sulfur Dioxide (SO_2) in excess of 0.0006 lb/MMBtu.
[40 CFR 52.21(j)]

The limits stated in a, b, c and d of this permit condition apply during all times of operation, including startup, shutdown, and malfunction.

2.27 The Permittee shall not cause, let, suffer, permit or allow a mass flow rate on the cooling towers (Source ID No. CT1, CT21, CT22 and CT23) equal to or greater than as determined to allow drift eliminator effectiveness of 0.0005%.

The limit of this permit condition apply during all times of operation, including startup, shutdown, and malfunction.
[40 CFR 52.21(j)]

2.28 The Permittee shall not cause, let, suffer, permit or allow the total dissolved solids concentration of the circulating water for the cooling towers (Source ID No. CT1, CT21, CT22 and CT23) to exceed 1,000 Mg/L.

The limit of this permit condition apply during all times of operation, including startup, shutdown, and malfunction.
[40 CFR 52.21(j)]

2.29 For the purpose of this Permit, a twelve consecutive month period is defined as the total for a month in the reporting period plus the totals for the previous eleven consecutive months.
[40 CFR Part 52.21(j)]

2.30 The Permittee shall not shall not cause, let, suffer, permit or allow any visible emissions of which the opacity is equal to or greater than ten (10) percent opacity (6-minute average) except as specified in Condition 2.25.
[40 CFR Part 52.21(j)]

2.31 The Permittee shall construct a physical barrier around the Osceola Steel Company facility to prevent public access.
[40 CFR Part 52.21]

2.32 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the storage silos (Source Codes: LSF and CSF) at the facility any gases, which contain particulate matter in excess of the rate derived from the equation noted below:
[391-3-1-.02(2)(e)(1)]

a. For process input weight rate up to and including 30 tons per hour:

$E = 4.1P^{0.67}$; or

b. For process input weight rate above 30 tons per hour:

$E = 55P^{0.11} - 40$

Where :
E = allowable PM emission rate in pounds per hour and
P = total dry process input weight rate in tons per hour.

3. Fugitive Emissions

3.1 The Permittee shall take all reasonable precautions with any operation, process, handling, transportation, or storage facilities to prevent fugitive emissions of air contaminants.

3.2 The Permittee shall take all reasonable precautions to prevent fugitive dust from becoming airborne. Fugitive dust sources include, but are not limited to slag handling (Source Code: SP) and facility roadways (Source Codes: SD, LD, SS, LS). Reasonable precautions that should be taken to prevent dust from becoming airborne include, but are not limited to, the following:
[391-3-1-.02(2)(n)1]

a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials, stockpiles, and other surfaces that can give rise to airborne dusts;

c. Daily inspection of slag handling operations and main haul roads to ensure adequate watering of the roads;

d. Covering, at all times when in motion, open bodied trucks, transporting materials likely to give rise to airborne dusts; and

e. The prompt removal of earth or other material from paved streets onto which earth or other material has been deposited.

f. Ensuring the slag handling operations and main haul roads, used to transfer slag, raw materials and finished steel will be watered at a minimum of once per day to suppress the generation of dust.

3.3 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from the Slag Handling Sources and Slag Piles (Source Code: SP) and facility roadways (Source Codes: SD, LD, SS, LS) any visible emissions of which the percent opacity is equal to or greater than 10 percent.
[40 CFR 52.21(j) and 391-2-1-.02(2)(n)(2) (subsumed)]

3.4 The Permittee shall not cause, let, suffer, permit or allow the drop height of the unprocessed slag piles (Source Code: SP) to be equal to or exceed 25 feet while equipment is stationary and 5 feet while equipment is mobile. The area of the unprocessed slag pile shall not exceed an area of 75 ft. x 75 ft.

The limit of this permit condition apply during all times of operation, including startup, shutdown, and malfunction.
[40 CFR 52.21(j) and 391-3-1-.02(2)(n) (subsumed)]

4. Process & Control Equipment

4.1 To comply with Conditions 2.12 and 2.25, the Permittee shall install a Baghouse (Control Device ID No. BH1) at the Stack BH1 for the Electric Arc Furnace. The Permittee shall operate Control Device BH1 at all times the Electric Arc Furnace (Source Code: EAF) is operating.
[40 CFR 52.21]

4.2 To comply with Conditions 2.34 and 2.35, the Permittee shall install a Baghouse (Control Device ID No.: BH2) and a closed vent system to the Lime Silo at the Stack LSF for the Lime Silo. The Permittee shall operate Control Device BH2 at all times the Lime Silo (Source Code: LS) is operating.
[40 CFR 52.21]

4.3 To comply with Conditions 2.34 and 2.35, the Permittee shall install a Baghouse (Control Device ID No.: BH3) and a closed vent system to the Carbon Silo at Stack CSF for the Carbon Silo. The Permittee shall operate Control Device BH3 at all times the Carbon Silo (Source Code: CS) is operating.
[40 CFR 52.21]

5. Monitoring

5.1 Any continuous monitoring system required by the Division and installed by the Permittee shall be in continuous operation and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Monitoring system response, relating only to calibration checks and zero and span adjustments, shall be measured and recorded during such periods. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service. [391-3-1-.02(6)(b)1]

5.2 The Permittee shall, install, calibrate, maintain and operate a bag leak detection system on the EAF baghouse (Source Code: BH1). The bag leak detection system must be installed and continuously operated. The bag leak detection system must meet the following specifications: [40 CFR 52.21, 40 CFR 60.273a(c) and 391-3-1-.02(6)(b)]

a. The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.

b. The bag leak detection system sensor must provide output of relative particulate matter loadings and the Permittee shall continuously record the output from the bag leak detection system using electronic means.

c. The bag leak detection system must be equipped with an alarm system that will sound when an increase in relative particulate loading is detected over the alarm set point established according to paragraph (e)(4) of 40 CFR 60.273a, and the alarm must be located such that it can be heard by the appropriate plant personnel.

d. For each bag leak detection system required by paragraph (e) of 40 CFR 60.273a, the Permittee shall develop and submit, for approval by the Division, a site-specific monitoring plan that addresses the items identified in paragraphs (i) through (v) of 40 CFR 60.273a (e)(4).

5.3 The Permittee shall perform melt shop opacity observations at a minimum of once per day during a meltdown and refining period and retain a record in a daily visible emissions (VE) log suitable for inspection or submittal. The observations shall be performed by a certified visible emissions observer, taken in accordance with Method 9, and, shall be for at least three six-minute periods when the furnace is operating in the melting and refining period. [40 CFR 60.273a(c), 40 CFR 60.274a(f), 391-3-1-.02(6)(b)1, and 40 CFR 70.6(a)(3)(i)]

5.4 The Permittee shall check and record on a once-per-shift basis the control system fan motor(s) amperes and damper position(s) and the furnace static pressure. In lieu of manually checking and recording control system fan motor(s) ampere and damper positioning, the Permittee may install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of "10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The Division may require the owner or operator to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of Appendix A.
[40 CFR 60.274a(b), Section 2.24.3a of the Division's Procedure for Testing and Monitoring Sources, 391-3-1-.02(6)(b)1, and 40 CFR 70.6(a)(3)(i)]

5.5 The Permittee shall make visible emission observations of each baghouse (APCD ID Nos. BH1, BH2 and BH3) at least once per day of operation of the furnace (Source Code E01) and retain a record in a daily visible emissions (VE) log suitable for inspection or submittal. The observations shall be made while the furnace is in the melting or refining phase of a heat cycle. The observations shall be performed by a certified visible emissions observer, taken in accordance with Method 9, and, shall be for at least three six-minute periods.
[40 CFR 60.273a(c), 391-3-1-.02(6)(b)1, and 40 CFR 70.6(a)(3)(i)]

5.6 The Permittee 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). These inspections shall include observations of the physical appearance of the equipment and any deficiencies shall be noted and proper maintenance performed.
[40 CFR 60.274a(d), 391-3-1-.02(6)(b)1, and 40 CFR 70.6(a)(3)(i)]

5.7 For each bag leak detection system installed according to Condition 5.2, the Permittee shall initiate procedures to determine the cause of all alarms within 1 hour of an alarm. Except as provided for under paragraph (g) 40 CFR 60.274a(d), 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 following:
[40 CFR 60.274a(d), 391-3-1-.02(6)(b)1, and 40 CFR 70.6(a)(3)(i)]

a. Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions;

b. Sealing off defective bags or filter media;

c. Replacing defective bags or filter media or otherwise repairing the control device;

d. Sealing off a defective baghouse compartment;

e. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; and

f. Shutting down the process producing the particulate emissions.

5.8 The Permittee shall employ combustion controls for each of all combustion sources located within the facility including but not limited to:
[40 CFR 52.21(j)]

a. Good Combustion Technique: Operator Practices – Maintenance of a written site specific operating procedures manual for all combustion sources in which operating procedures, including startup, shutdown, and malfunction are well documented in accordance with the manufacturer's specifications. The operating procedures must be updated as applicable with any equipment or operating practice changes. The procedures shall contain operating logs documenting such changes and any deviations from the operating procedures. The operating procedures manual shall be maintained in an area allowing easy access to the boiler's operator and made available for Division review and inspection upon request.

b. Good Combustion Technique: Maintenance Knowledge – The combustion equipment must be maintained in accordance with manufacturer's specifications by personnel with training specific to the boiler and operating procedures.

c. Good Combustion Technique: Maintenance Practices – Maintenance of a written site specific procedures manual for best/optimum maintenance practices in accordance to the manufacturer's specifications for each piece of equipment. Periodic evaluations, inspections, and overhauls as appropriate must be conducted in accordance with manufacturer's specifications. The maintenance practices must be updated as applicable with any equipment or operating practice changes. The modification of these practice changes, scheduled periodic evaluation inspections and overhaul, as appropriate, and any deviations from the prescribed maintenance practices shall be well documented in maintenance logs. The maintenance practices manual(s) shall be maintained in an area allowing easy access to the boiler's operator and made available for Division review and inspection upon request.

d. Good Combustion Technique: Stoichiometic (fuel/air) Ratio – The Permittee must continuously monitor and adjust, as applicable, the fuel/air combustion ratio of the combustion equipment per the manufacturer's specifications. The Permittee must submit a request for the Division's review and approval to install continuous fuel/air ratio monitor(s) different than the ones described here. The request must be submitted 30 days prior to proposed installation of the proposed monitor(s).

5.9 The Permittee shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The pressure shall be recorded as 15-minute integrated averages. The monitoring device may be installed in any appropriate location in the EAF or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.
[40 CFR 52.21(j) and 40 CFR 60.274a(f)]

5.10 The Permittee shall demonstrate compliance with the applicable shop standard during the melting and refining period, and at any other time at the discretion of the Division. The pressure in the free space inside the furnace shall be determined during the melting and refining period(s) using the monitoring device required by Condition 5.9. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures is considered to be unacceptable operation and maintenance of the affected facility by the Division.
[40 CFR 60. 274(a) and Section 2.24a of Procedures for Testing and Monitoring Sources of Air Pollutants]

5.11 During any performance test required under §60.8, and for any report thereof required by 40 CFR 60.276a(f) or to determine compliance with 40 CFR 60.272a(a)(3), the Permittee shall monitor the following information for all heats covered by the test:
[40 CFR 52.21(j) and 40 CFR 60.274a(h)]

a. Charge weights and composition of charge materials, and tap weights and composition of tap materials;

b. Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and the pressure inside an EAF when direct-shell evacuation control systems are used;

c. Number of charges;

d. Control device operation log; and

e. Method 9 data.

5.12 The Permittee shall verify charge materials and tap materials received for combustion in the Electric Arc Furnace complies with the sulfur content requirement of Condition No. 2.13. Verification shall consist of analysis of the charge and tap materials conducted by methods of sampling and analysis, which have been specified or approved by the Division. The Permittee shall retain the records of such certification or fuel analysis in a form suitable for inspection and/or submittal to the Division.
[40 CFR 52.21]

5.13 Monitoring will consist of records demonstrating that water suppression as warranted from the slag piles and roads are applied in accordance with Condition 3.2 for adequate dust control. "As warranted" is defined in the permit as dust control sufficient to keep visible emissions below the limit specified in Permit Condition 3.3. A deviation of the required monitoring shall be reported as part of the required quarterly report.
[40 CFR 52.21(j)]

5.14 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.

a. The quantity of steel produced in tons per hour from the Electric Arc Furnace. Data shall be measured at the caster and recorded hourly.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21]

6. Performance Testing

6.1 The Permittee shall cause to be conducted a performance test at any specified emission point when so directed by the Division. The following provisions shall apply with regard to such tests:

a. All tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants.

b. All test results shall be submitted to the Division within sixty (60) days of the completion of testing.

c. The Permittee shall provide the Division thirty (30) days prior written notice of the date of any performance test(s) to afford the Division the opportunity to witness and/or audit the test, and shall provide with the notification a test plan in accordance with Division guidelines.

d. All monitoring systems and/or monitoring devices required by the Division shall be installed, calibrated and operational prior to conducting any performance test(s). For any performance test, the Permittee shall, using the monitoring systems and/or monitoring devices, acquire data during each performance test run. All monitoring system and/or monitoring device data acquired during the performance testing shall be submitted with the performance test results.

6.2 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants**. The methods for the determination of compliance with emission limits listed under Section 2.0 are as follows:

a. Method 1 for the determination of sample point locations,

b. Method 2 for the determination of flow rate,

c. Method 3 or 3A for the determination of stack gas molecular weight,

d. Method 3B for the determination of the emissions rate correction factor or excess air. Method 3A may be used as an alternative to Method 3B,

e. Method 4 for the determination of stack gas moisture,

f. Method 5 for the determination of Particulate Matter emissions for negative-pressure fabric filters (baghouse) subject to NSPS Subpart AAa and other types of control devices and Method 5D shall be used for positive-pressure fabric filters to determine the particulate matter concentration and volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf) and, when a single EAF or AOD vessel is sampled, the sampling time shall include an integral number of heats.

g. Method 5D for the determination of Particulate Matter emissions from baghouses not subject to NSPS Subpart AAa.

h. Method 6 or 6A for the determination of Sulfur Dioxide Emissions from Stationary Sources.

i. Method 7 or 7E for the determination of Nitrogen Oxides emissions.

j. Method 9 and the procedures contained in Section 1.3 of the above reference document for the determination of opacity. To demonstrate compliance with 40 CFR 60.272a(a) (1), (2), and (3), the Method 9 test runs for baghouse BH1 shall be conducted concurrently with the particulate matter test runs, unless inclement weather interferes. The Permittee shall determine compliance with the opacity limitation specified in Condition 2.25 and 2.32 using emissions data as measured and recorded in accordance with Condition No. 5.5 on a continuous basis through the use of a 6-minute average opacity.

k. Method 10 for the determination of carbon monoxide concentration,

l. Method 202 for the determination of Condensable Particulate Emissions from Stationary Sources.

Minor changes in methodology may be specified or approved by the Director or his/her designee when necessitated by process variables changes in facility design, or improvement or corrections, which, in his opinion, render those methods or procedures, or portions thereof, more reliable.
[391-3-1-.02(3)(a)]

6.3 Within 60 days after achieving the maximum production rate at which the Electric Arc Furnace (Source Code: EAF) will be operated, but not later than 180 days after the initial startup of the Electric Arc Furnace, the Permittee shall conduct the following initial performance tests and furnish to the Division. Subsequent performance tests are required once every twelve (12) months thereafter. A written report of the results of such performance tests shall be provided to the Division within sixty (60) days of the completion of testing.:
[391-3-1-.02(3)]

a. Performance test on the Electric Arc Furnace, for carbon monoxide to verify compliance with Condition No. 2.25a.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

b. Performance test on the Electric Arc Furnace, for nitrogen oxide to verify compliance with Condition No. 2.25b.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

c. Performance tests on the Electric Arc Furnace, for PM and PM_{10} to verify compliance with Condition No. 2.25c.
[40 CFR 52.21, 40 CFR 60.273a and 391-3-1-.02(6)(b)1]

d. Performance test on the Electric Arc Furnace, for sulfur dioxide to verify compliance with Condition No. 2.25d.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

e. Performance test on the Electric Arc Furnace, for opacity to verify compliance with Condition No. 2.25e.
[391-3-1-.02(6)(b)1, 40 CFR 52.21 and 40 CFR 60.273a]

Initial and subsequent performance tests to demonstrate compliance with Condition 2.25a and Condition 2.25b must be performed simultaneously to verify compliance with both limits during peak operation of the EAF

6.4 During any particulate matter performance test on baghouse BH1, the Permittee shall comply with the requirements of 40 CFR 60.274a(c), (g), and (h).
[40 CFR 60.275a, 40 CFR 70.6(a)(3)(i) and 391-3-1-.02(6)(b)1 (subsumed)]

6.5 Where emissions from any EAF are combined with emissions from facilities not subject to the provisions of this subpart but controlled by a common capture system and control device, the Permittee shall use any of the following procedures during a performance test:
[40 CFR 60.275a, 40 CFR 70.6(a)(3)(i) and 391-3-1-.02(6)(b)1 (subsumed)]

a. Base compliance on control of the combined emissions; or

b. Use a Division-approved method that compensates for the emissions from the facilities not subject to the provisions of this subpart

6.6 During performance tests required in 40 CFR 60.8, the Permittee shall not add gaseous diluents to the effluent gas stream after the fabric in any baghouse, unless the amount of dilution is separately determined and considered in the determination of emissions.
[40 CFR 60.275a, 40 CFR 60.8 and 391-3-1-.02(6)(b)1 (subsumed)]

7. Notification, Reporting and Record Keeping Requirements

7.1 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and to the EPA. The records shall be retained for at least five (5) years following the date of entry.
[391-3-1-.02(6)(b)1(i)]

7.2 The Permittee shall maintain a record of monthly production (reported as tons of molten steel) for the Electric Arc Furnace (Source Code: EAF) and for the total amount produced in the previous 11 months. This information shall be recorded in a permanent form suitable and available for inspection.
[40 CFR 52.21]

7.3 The Permittee shall submit reports of the amount of steel produced from the Electric Arc Furnace (Source Code: EAF) for the quarterly periods ending March 31, June 30, September 30, and December 31 of each year. All reports shall be postmarked by the 30th day following the end of each reporting period, April 30, July 30, October 30, and January 30, respectively. The reports shall contain the monthly amount of steel cast and the 12-consecutive month totals for the amount of steel cast for each of the three months in the quarterly period. A 12-consecutive month total shall be the total for a month in the reporting period plus the totals for the previous eleven consecutive months. The report shall be prepared from the records retained in Condition 5.3.1.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

7.4 The Permittee shall maintain files of all measurements, including continuous monitoring systems, monitoring devices, and performance testing measurements; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices. These files shall be kept in a permanent form suitable for inspection and shall be maintained for a period of at least five (5) years following the date of such measurements, reports, maintenance and records.
[391-3-1-.03(2)(c)]

7.5 Within 90 days after initial startup of the Electric Arc Furnace, for the bag leak detection system required by paragraph (e) of 40 CFR 60.273a, the Permittee shall develop and submit to the Division, for approval, a site-specific monitoring plan. The Permittee shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan shall describe the following:
[40 CFR 60.276a and 40 CFR 52.21]

a. Installation of the bag leak detection system;

b. Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established;

c. Operation of the bag leak detection system including quality assurance procedures;

d. How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list; and

e. How the bag leak detection system output shall be recorded and stored.

7.6 Following initial adjustment, the Permittee shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Division, except as provided for the following reasons:
[40 CFR 60.276a(e)]

a. Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific monitoring plan required under paragraph (e)(4) of 40 CFR 276a.

b. If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required under paragraph (c) of 40 CFR 60.276a and the alarm on the bag leak detection system does not sound, the owner or operator shall lower the alarm set point on the bag leak detection system to a point where the alarm would have sounded during the period when the opacity observations were made.

7.7 For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detection sensor must be installed downstream of the baghouse.
[40 CFR 60.276a(f)]

7.8 The Permittee shall maintain records of all shop opacity observations made in accordance with 40 CFR 60.273a(d). All shop opacity observations in excess of the emission limit specified in 40 CFR 60.272a(a)(3) of this subpart shall indicate a period of excess emission, and shall be reported to the Division quarterly, according to 40 CFR 60.7(c).
[40 CFR 60.276a(g)]

7.9 The Permittee shall maintain the following records for each bag leak detection system required under 40 CFR 60.273a(e):
[40 CFR 60.276a(h)]

a. Records of the bag leak detection system output;

b. Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

c. An identification of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 3 hours of the alarm.

7.10 The Permittee shall maintain records of all data obtained through compliance with requirements outlined in Condition 5.4 and Condition 5.6. This information shall be recorded in a permanent form suitable and available for inspection.
[40 CFR 60.276a and Section 2.24.2a of the Procedures for Testing and Monitoring Sources (subsumed)]

7.11 The Permittee shall maintain records that the drift eliminator from cooling tower (Source Codes: CT1, CT21, CT22 and CT3) operates in a manner that is consistent with Condition Nos. 2.27 and 2.28.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

7.12 The Permittee shall keep a file containing the specifications for the maximum sulfur content (percent by weight), of each charge carbon product used in the Electric Arc Furnace with supporting documentation demonstrating compliance with the sulfur dioxide limit in Condition 2.13.
[40 CFR 52.21]

7.13 The Permittee shall develop and implement a Dust Suppression Plan in accordance with Condition 2.22 to suppress fugitive dust from the slag piles (Source Code: SP) and the Roadway Particulate Sources (Source Codes: SD, LD, SS and LS). The plan shall be subject to review and approval by the Division and shall include records sufficient to show that the plan is followed. In particular, any deviations from the plan, or failure to follow plan procedures, shall be noted.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

7.14 In addition to any other reporting requirements of this Permit, the Permittee shall report to the Division in writing, within seven (7) days, any deviations from applicable requirements associated with any malfunction or breakdown of process, fuel burning, or emission control equipment for a period of four hours or more which results in excessive emissions. The Permittee shall submit a written report, which shall contain the probable cause of the deviation(s), duration of the deviation(s), and any corrective actions or preventive measures taken.
[391-3-1-.02(6)(b)1.(iv)]

7.15 The Permittee shall submit a written report containing excess emissions, exceedances, and/or excursions as described in this permit and any monitor malfunctions for each quarterly period ending March 31, June 30, September 30, and December 31 of each year. All reports shall be postmarked by the 30th day following the end of each reporting period, April 30, July 30, October 30, and January 30, respectively. Reporting required by this condition shall begin at the end of the quarter in which initial startup is completed. In the event that there have not been any excess emissions, exceedances, excursions or malfunctions during a reporting period, the report should so state. Otherwise, the contents of each report shall be as specified by the Division's Procedures for Testing and Monitoring Sources of Air Pollutants and shall contain the following:
[391-3-1-.02(6)(b)1]

a. A summary report of excess emissions, exceedances and excursions, and monitor downtime, in accordance with Section 1.5(c) and (d) of the Division's Procedures for Testing and Monitoring Sources of Air Pollutants, including any failure to follow required work practice procedures.

b. Total operating time during each reporting period.

c. The magnitude of all excess emissions, exceedances and excursions computed in accordance with the applicable definitions as determined by the Director, and any conversion factors used, and the date and time of the commencement and completion of each time period of occurrence.

d. Specific identification of each period of such excess emissions, exceedances, and excursions that occur during startups, shutdowns, or malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.

e. The date and time identifying each period during which any required monitoring system or device was inoperative (including periods of malfunction) except for zero and span checks, and the nature of the repairs, adjustments, or replacement. When the monitoring system or device has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

f. Certification that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

7.16 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition No. 7.17, the following excess emissions, exceedances, and excursions shall be reported:
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

a. Excess emissions: (means for the purpose of this Condition and Condition No. 7.17, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

None required to be reported in accordance with Condition No. 7.17.

b. Exceedances: (means for the purpose of this Condition and Condition No. 7.17, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)
[40 CFR 52.21, 40 CFR 60.272a, and 391-3-1-.02(6)(b)1]

i. Any six-minute period during which the opacity, as measured by Test Method 9 for Visible Emissions (VE) for the Electric Arc Furnace (Source Code: EAF), exceeds 3 percent from the outlet of the baghouse,

ii. Any six-minute period during which the average opacity for any emission source not covered by a more stringent standard, as measured by Test Method 9 for Visible Emissions (VE), exceeds 10 percent.

iii. Any twelve consecutive month period during which steel production exceeds 430,000 tons.

iv. Any period during which steel production exceeds 60 tons/hour,

v. Anytime the high density mist eliminators for the Cooling Towers (Source Codes: CT1, CT21, CT22 and CT3) are not operating in accordance with Condition No. 2.28 and 2.29,

vi. Anytime the sulfur content of the feed materials used to charge the Electric Arc Furnace (Source Code: EAF) exceeds 2.5 percent sulfur by weight.

c. Excursions: (means for the purpose of this Condition and Condition No. 7.25, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring).

i. Anytime static pressure at the Electric Arc Furnace exceeds the value established under 40 CFR 60.274a(g) and either operation of control system fan motor amperes at values exceeding ± 15 percent of the value established under 40 CFR 60.274a(c) or operation at flow rates lower than those established under 60.274a(c).

7.17 Within 90 days after initial startup of the Electric Arc Furnace, the Permittee shall conduct the demonstration of compliance with 40 CFR 60.272a(a) and submit to the Division a written report of the results of the test. This report shall include the following information required by 40 CFR 60.276a(f).
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

7.18 The Permittee shall maintain a record of monthly natural gas consumption (reported in cubic meters or gallons) for all combustion sources within the facility and for the total amount consumed in the previous 11 months. This information shall be recorded in a permanent form suitable and available for inspection.
[Avoidance of 40 CFR 52.21]

8. Special Conditions

8.1 At any time that the Division determines that additional control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and welfare, the Division reserves the right to amend the provisions of this Permit pursuant to the Division's authority as established in the Georgia Air Quality Act and the rules adopted pursuant to that Act.

8.2 The Permittee shall calculate and pay an annual Permit fee to the Division. The amount of the fee shall be determined each year in accordance with the "Procedures for Calculating Air Permit Fees."