

**STATE OF MISSISSIPPI  
AIR POLLUTION CONTROL  
TITLE V PERMIT**

**TO OPERATE AIR EMISSIONS EQUIPMENT**

**THIS CERTIFIES THAT**

Esco Corporation  
9098 Eastside Drive Extension  
Highway 15 North  
Newton, Mississippi  
(Newton County)

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. § 7401 - 7671) and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

**Permit Issued: December 5, 2014**

**Effective Date: As specified herein.**

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**

  
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**AUTHORIZED SIGNATURE**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Expires: November 30, 2019**

**Permit No.: 1980-00002**

**Modified: August 14, 2015**

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## SECTION 1. GENERAL CONDITIONS

- 1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(a).)
- 1.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(b).)
- 1.3 This permit and/or any part thereof 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. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(c).)
- 1.4 (a) This permit shall be reopened and revised under any of the following circumstances:
  - (1) Additional applicable requirements under the Federal Act become applicable to a major Title V source with a remaining permit term of 3 or more years. Such a reopening shall be completed no 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 the permit is due to expire, unless the original permit or any of its terms and conditions has been extended.
  - (2) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
  - (3) The Permit Board or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.
  - (4) The Administrator or the Permit Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (b) Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall only affect those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

- (c) Reopenings shall not be initiated before a notice of such intent is provided to the Title V source by the DEQ at least 30 days in advance of the date that the permit is to be reopened, except that the Permit Board may provide a shorter time period in the case of an emergency. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.G)
  
- 1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(e).)
  
- 1.6 This permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(d).)
  
- 1.7 The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(5).)
  
- 1.8 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.)
  - (a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgments where such judgments are derived from process and/or emission data which supports the estimates of maximum actual emission. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).)
  
  - (b) If the Commission determines that there is not sufficient information available on

a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D(2).)

- (c) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D.)
- (d) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.C.)

1.9 No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(8).)

- 1.10 Any document required by this permit to be submitted to the DEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.2.E.)
- 1.11 The permittee shall allow the DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- (a) enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
  - (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - (c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - (d) as authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C(2).)
- 1.12 Except as otherwise specified or limited herein, the permittee shall have necessary sampling ports and ease of accessibility for any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I(1).)
- 1.13 Except as otherwise specified or limited herein, the permittee shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board for air pollution control equipment that was in existence prior to May 8, 1970. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I(2).)
- 1.14 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F(1).)
- 1.15 Nothing in this permit shall alter or affect the following:
- (a) the provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;

- (b) the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - (c) the applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act.
  - (d) the ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F(2).)
- 1.16 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required pursuant to Section 112(r) of the Act to register such a plan. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.H.)
- 1.17 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.C(2)., R. 6.4.B., and R. 6.2.A(1)(c).)
- 1.18 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:
- (a) the changes are not modifications under any provision of Title I of the Act;
  - (b) the changes do not exceed the emissions allowable under this permit;
  - (c) the permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such other time frame as provided in other regulations for emergencies) and the notification includes:
    - (1) a brief description of the change(s),
    - (2) the date on which the change will occur,
    - (3) any change in emissions, and
    - (4) any permit term or condition that is no longer applicable as a result of the change;
  - (d) the permit shield shall not apply to any Section 502(b)(10) change. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.F(1).)

- 1.19 Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in 11 Miss. Admin. Code Pt. 2, Ch. 3., "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared. (Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 3.)
- 1.20 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2., "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment", and may require modification of this permit in accordance with Regulations 11 Miss. Admin. Code Pt. 2, Ch. 6., "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act". Modification is defined as "[a]ny physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:
- (a) routine maintenance, repair, and replacement;
  - (b) use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
  - (c) use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;
  - (d) use of an alternative fuel or raw material by a stationary source which:
    - (1) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; or
    - (2) the source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166;
  - (e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or 40 CFR 51.166; or
  - (f) any change in ownership of the stationary source."



- 1.21 Any change in ownership or operational control must be approved by the Permit Board. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.D(4).)
- 1.22 This permit is a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit the source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.B(1).)
- 1.23 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance. Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.
- (a) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.
  - (b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.
  - (c) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.G.)
- 1.24 Except as otherwise specified herein, the permittee shall be subject to the following provision with respect to emergencies.
- (a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
  - (b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions

specified in (c) following are met.

- (c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:
  - (1) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - (2) the permitted facility was at the time being properly operated;
  - (3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
  - (4) the permittee submitted notice of the emergency to the DEQ within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- (d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.G.)

1.25 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, startups, shutdowns and maintenance.

- (a) Upsets (as defined by 11 Miss. Admin. Code Pt. 2, R. 1.2.KK.)
  - (1) The occurrence of an upset constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the permittee demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:
    - (i) an upset occurred and that the permittee can identify the cause(s) of the upset;
    - (ii) the source was at the time being properly operated;
    - (iii) during the upset the permittee took all reasonable steps to minimize

levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;

- (iv) the permittee submitted notice of the upset to the DEQ within 5 working days of the time the upset began; and
  - (v) the notice of the upset shall contain a description of the upset, any steps taken to mitigate emissions, and corrective actions taken.
- (2) In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
- (3) This provision is in addition to any upset provision contained in any applicable requirement.
- (b) Startups and Shutdowns (as defined by 11 Miss. Admin. Code Pt. 2, R. 1.2.HH. & R. 1.2.CC.)
- (1) Startups and shutdowns are part of normal source operation. Emissions limitations applicable to normal operation apply during startups and shutdowns except as follows:
    - (i) when sudden, unavoidable breakdowns occur during a startup or shutdown, the event may be classified as an upset subject to the requirements above;
    - (ii) when a startup or shutdown is infrequent, the duration of excess emissions is brief in each event, and the design of the source is such that the period of excess emissions cannot be avoided without causing damage to equipment or persons; or
    - (iii) when the emissions standards applicable during a startup or shutdown are defined by other requirements of Applicable Rules and Regulations or any applicable permit.
  - (2) In any enforcement proceeding, the permittee seeking to establish the applicability of any exception during a startup or shutdown has the burden of proof.
  - (3) In the event this startup and shutdown provision conflicts with another applicable requirement, the more stringent requirement shall apply.
- (c) Maintenance.
- (1) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable

maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the permittee can demonstrate the following:

- (i) the permittee can identify the need for the maintenance;
  - (ii) the source was at the time being properly operated;
  - (iii) during the maintenance the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;
  - (iv) the permittee submitted notice of the maintenance to the DEQ within 5 working days of the time the maintenance began or such other times as allowed by DEQ; and
  - (v) the notice shall contain a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken.
- (2) In any enforcement proceeding, the permittee seeking to establish the applicability of this section has the burden of proof.
- (3) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

1.26 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M, as adopted by reference in Regulation 11 Miss Admin. Code Pt. 2, R. 1.8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities

**SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES**

<b>Emission Point</b>	<b>Description</b>
<b>AA-000</b>	<b>Steel Foundry/Finished Steel Casting Facility</b>
<b>AB-000</b>	<b>Melting and Refining Operations</b>
<b>AB-001</b>	<b>One (1) Fabric Filter Baghouse (AA-001) controlling emissions from the Two Electric Arc Furnaces (EAF-1 and EAF-2).</b>
<b>AB-002</b>	<b>One (1) Fabric Filter Baghouse (AA-002) controlling emissions from one Argon-Oxygen Decarburization (AOD-1) Vessel.</b>
<b>AB-003</b>	<b>One (1) Fabric Filter Baghouse (AA-032) controlling emissions from one Argon-Oxygen Decarburization (AOD-2) Vessel.</b>
<b>AC-000, AD-000, AE-000, and AF-000</b>	<b>Casting Operations (Mold and Core Making, Pouring and Cooling, and Shakeout and Sand Reclaiming)</b>
<b>AC-000</b>	<b>Mold Making Operations</b>
<b>AC-001</b>	<b>One (1) Fabric Filter Baghouse (AA-003) controlling emissions from the Greensand Muller and mold making Operation.</b>
<b>AC-002</b>	<b>One (1) Fabric Filter Baghouse (AA-033) controlling emissions from the No Bake Mold Making Operation.</b>
<b>AD-000</b>	<b>Core Making Operations</b>
<b>AD-001</b>	<b>One (1) Packed Tower Scrubber (AA-037) controlling emissions from the Cold Box Core Making and Curing</b>
<b>AD-002</b>	<b>One (1) Packed Tower Scrubber (AA-037) controlling emissions from the Cold Box Core Making and Curing Operation</b>
<b>AD-003</b>	<b>One (1) Packed Tower Scrubber (AA-037) controlling emissions from the Cold Box Core Making and Curing Operation.</b>
<b>AD-004</b>	<b>No Bake and Shell Core Making and Curing Operations</b>
<b>AE-000</b>	<b>Pouring and Cooling Operation</b>
<b>AE-001</b>	<b>One (1) Fabric Filter Baghouse (AA-030) controlling emissions from the Greensand Pouring and Cooling Floor.</b>
<b>AE-002</b>	<b>One (1) Fabric Filter Baghouse (AA-036) controlling emissions from the No Bake Pouring and Cooling Floor.</b>
<b>AF-000</b>	<b>Shakeout and Sand Reclaim Operations</b>
<b>AF-001</b>	<b>One (1) Fabric Filter Baghouse (AA-006) controlling emissions from the Greensand Shakeout Process.</b>

Emission Point	Description
AF-002	No Bake Shakeout Operation and No Bake Sand Reclaim Operation ducted to AA-031 (fabric filter baghouse).
AF-003	One Fabric Filter Baghouse (AA-014) controlling emissions from two thermal Sand Reclaim Units.
AG-000	<b>Material Handling</b>
AG-001	One Fabric Filter Baghouse (AA-010) controlling emissions from the Pattern Shop.
AG-002	One (1) Fabric Filter Baghouse (AA-014) for controlling emissions from the scrap Burn Booth.
AG-003	Scrap Handling Operation
AG-004	Slag Handling and Slag Processing Operation
AG-005	Three (3) Storage Silos containing Core Room Sand, Molding Greensand, and Bentonite all venting to baghouse AA-003; One Storage Silo containing Lime venting to baghouse AA-001; and Two (2) No Bake Sand Tanks venting to baghouse AA-031.
AH-000	<b>Finishing Operations</b>
AH-001	Sixteen (16) High Temperature Heat Treat Ovens
AH-001a	Eight (8) Existing High Temperature Heat Treat Ovens each with a combined 3.3 MMBTU/Hr natural gas fired burner capacity.
AH-001b	Seven (7) New High Temperature Heat Treat Ovens each with a combined 3.3 MMBTU/Hr natural gas fired burner capacity.
AH-001c	One (1) High Temperature Heat Treat Oven No. 8 utilizing natural gas fired burners with a combined MMBTU/Hr capacity of 3.75 MMBTU/Hr.
AH-002	Twelve (12) Low Temperature Heat Treat Ovens
AH-002a	Seven (7) Existing Low Temperature Heat Treat Ovens each with a combined 1.5 MMBTU/Hr natural gas fired burner capacity.
AH-002b	Five (5) New Low Temperature Heat Treat Ovens each with a combined 1.5 MMBTU/Hr natural gas fired burner capacity.
AH-003	One (1) Fabric Filter Baghouse (AA-004) controlling emissions from the Shotblast Operations.
AH-004	One (1) Fabric Filter Baghouse (AA-005) controlling emissions from the No Bake Sand Reclaim and Greensand Sand Reclaim operations.
AH-005	One (1) Fabric Filter Baghouse (AA-034) controlling emission from the Shotblast Operations.

Emission Point	Description
AH-006	Grinding Operations
AH-007	Air Arc Cutting and Welding Operations venting to one Fabric Filter Baghouse (AA-035).
AI-000	Coating and Miscellaneous Operations
AI-001	Powder Coating Operation equipped with a 6.0 MMBTU/Hr natural gas fired thermo set unit
AI-002	Core Wash Operation
AJ-000	Facility-wide Natural Gas usage in natural gas-fired units throughout the facility.

### SECTION 3. EMISSION LIMITATIONS & STANDARDS

#### A. General Facility Wide Emission Limitations and Standards

- 3.A.1 The permittee shall not cause, permit or allow the emission of particulate matter in total quantities in any one hour from any manufacturing process, which includes any associated stacks, vents, outlets, or combination thereof to exceed the amount determined by the relationship

$$E = 4.1p^{0.67}$$

Where E is the emission rate in pounds per hour and p is the process weight in tons per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, R.1.3.F(1).)



**B. Emission Point Specific Emission Limitations and Standards**

<b>Emission Point</b>	<b>Applicable Requirement</b>	<b>Condition Number</b>	<b>Pollutant/Parameter</b>	<b>Limit/Standard</b>
<b>AA-000</b> <i>(Entire Facility)</i>	<b>PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).</b>	<b>3.B.1</b>	<b>PM/PM<sub>10</sub></b> <b>(filterable and condensable)</b>	<b>102.54 tpy</b>
		<b>3.B.2</b>	<b>PM<sub>2.5</sub></b> <b>(filterable and condensable)</b>	<b>95.72 tpy</b>
		<b>3.B.3</b>	<b>CO</b>	<b>548.3 tpy</b>
		<b>3.B.4</b>	<b>NO<sub>x</sub></b>	<b>51.9 tpy</b>
		<b>3.B.5</b>	<b>VOC</b>	<b>131.3 tpy</b>
		<b>3.B.6</b>	<b>SO<sub>2</sub></b>	<b>12.7 tpy</b>
<b>AB-003</b> <i>(AOD Baghouse)</i>	<b>PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).</b>	<b>3.B.7</b>	<b>CO</b>	<b>BACT: 2.74 lbs/ton of metal poured</b>
<b>AE-002 and AF-002</b> <i>(Baghouse (AA-036 and AA-031) for No Bake Pouring and Cooling and Shakeout and Reclaiming)</i>	<b>PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).</b>	<b>3.B.8</b>	<b>CO</b>	<b>BACT: 6 lbs/ton of metal poured</b>
<b>AF-003</b> <i>(Baghouse for Thermal Sand Reclaim-AA-014)</i>	<b>PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).</b>	<b>3.B.9</b>	<b>CO</b>	<b>BACT: 0.098 lb/ton of sand</b>
<b>AH-001b</b> <i>(7 new High Temp Heat Treat Ovens)</i>	<b>PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).</b>	<b>3.B.10</b>	<b>CO</b>	<b>BACT: 0.080 lb/MMBTU</b>
<b>AH-002b</b> <i>(5 new Low Temp Heat Treat Ovens)</i>	<b>PSD Construction Permit Issued June 1, 2012 and modified August 14, 2015</b>	<b>3.B.11</b>	<b>CO</b>	<b>BACT: 0.24 lb/hr</b>

Emission Point	Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standard
<b>AH-001c</b> <i>(Heat Treat Oven No. 8)</i>	<b>Federally Enforceable Permit to Construct Issued on September 27, 2004 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).</b>	<b>3.B.12</b>	<b>CO</b>	<b>2.0 TPY</b>
<b>AI-001</b> <i>(Powder Coating Unit)</i>	<b>PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).</b>	<b>3.B.13</b>	<b>CO</b>	<b>BACT: 0.083 lb/MMBTU/hr</b>
<b>AB-000, AC-000, AD-000, AE-000, and AF-000</b> <i>(Melting and Refining and Casting Operations, including Fugitives)</i>	<b>40 CFR 63.7681</b>	<b>3.B.14</b>	<b>40 CFR 63 – Subpart EEEEE</b>	<b>Applicability and Compliance Dates</b>
<b>AB-001</b> <i>(EAFs)</i>	<b>40 CFR 63.7690(a)(1)(i) or</b>	<b>3.B.15</b>	<b>PM</b>	<b>0.005 gr/dscf or</b>
	<b>40 CFR 63.7690(a)(1)(ii)</b>		<b>Total Metal HAP</b>	<b>0.0004 gr/dscf</b>
<b>AA-000</b> <i>(Entire Facility Buildings)</i>	<b>40 CFR 63.7690(a)(7)</b>	<b>3.B.16</b>	<b>Opacity</b>	<b>less than 20% except for one 6-minute average per hour that does not exceed 27%</b>
<b>AF-003</b> <i>(Thermal Sand Reclaimers)</i>	<b>40 CFR 60.730(a) and (c)</b>	<b>3.B.17</b>	<b>40 CFR 60, Subpart UUU</b>	<b>Applicability and Compliance Dates (i.e., commencement of construction)</b>
	<b>40 CFR 60.732</b>	<b>3.B.18</b>		<b>0.04 gr/dscf for calciners; 0.025 gr/dscf for calciners and dryers in series; less than 10% unless operating a wet scrubber</b>

Emission Point	Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standard
<b>AB-001, AB-002, AB-003, AE-001, AE-002, AF-002, AF-003, AH-003, AH-004, AH-005, and AH-007</b> <i>(Baghouses for EAF's, AODs, Pouring and Cooling, No Bake Shakeout, Thermal Reclaiming, Shotblasting, and Air Arc Cutting and Welding)</i>	<b>40 CFR 64.2(a) and (b)(vi)</b>	<b>3.B.19</b>	<b>CAM</b>	<b>Applicability</b>
<b>AA-000</b> <i>(Facility Wide)</i>	<b>PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).</b>	<b>3.B.20</b>	<b>Control Devices</b>	<b>Operate at all times</b>
<b>AA-000</b> <i>(Each Manufacturing Process)</i>	<b>11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).</b>	<b>3.A.1</b>	<b>PM</b>	<b><math>E = 4.1p^{0.67}</math></b>
<b>AJ-000</b> <i>(Facility Wide Natural Gas Usage)</i> <b>and Insignificant Activities</b>	<b>11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).</b>	<b>3.C.1</b>	<b>PM</b>	<b>0.6 lbs/MMBTU heat input</b>
<b>AJ-000</b> <i>(Low Temp Heat Treat Ovens and Facility Wide Natural Gas Usage)</i> <b>and Insignificant Activities</b>	<b>11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).</b>	<b>3.C.2</b>	<b>SO<sub>2</sub></b>	<b>4.8 lbs/MMBTU heat input</b>

- 3.B.1 For Emission Point AA-000 (*Entire Facility*), the permittee shall limit emission of Particulate Matter/Particulate Matter-10 (PM/PM10) (filterable and condensable) to no more than 102.54 tons per year as determined for each consecutive (rolling) twelve month period. (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.2 For Emission Point AA-000 (*Entire Facility*), the permittee shall limit emission of Particulate Matter-2.5 (PM2.5) (filterable and condensable) to no more than 95.72 tons per year as determined for each consecutive (rolling) twelve month period. (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.3 For Emission Point AA-000 (*Entire Facility*), the permittee shall limit emission of Carbon Monoxide (CO) to no more than 548.3 tons per year as determined for each consecutive (rolling) twelve month period. (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.4 For Emission Point AA-000 (*Entire Facility*), the permittee shall limit emission of Nitrogen Oxides (NOX) to no more than 51.9 tons per year as determined for each consecutive (rolling) twelve month period. (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.5 For Emission Point AA-000 (*Entire Facility*), the permittee shall limit emission of Volatile Organic Compounds (VOC) to no more than 131.3 tons per year as determined for each consecutive (rolling) twelve month period. (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.6 For Emission Point AA-000 (*Entire Facility*), the permittee shall limit emission of Sulfur Dioxide (SO<sub>2</sub>) to no more than 12.7 tons per year as determined for each consecutive (rolling) twelve month period. (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.7 For Emission Point AB-003 (*Melting and Refining AOD Baghouse*), the permittee shall limit emissions of Carbon Monoxide (CO) to no more than 2.74 lbs per ton of metal poured (BACT for CO). (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.8 For Emission Points AE-002 (*No Bake Pouring and Cooling Floor Baghouse*) and AF-002 (*No Bake Shakeout and No Bake Sand Reclaimer Operations Baghouse*), the permittee shall limit emissions of Carbon Monoxide (CO) to no more than 6 lbs per ton of metal poured from each of the two baghouses (AA-036 and AA-031) (BACT for CO). (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.9 For Emission Point AF-003 (*Thermal Sand Reclaim Baghouse*), the permittee shall limit emissions of Carbon Monoxide (CO) to no more than 0.098 lbs per ton of sand from the
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baghouse (AA-031) (BACT for CO). (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)

- 3.B.10 For Emission Point AH-001b (*Seven (7) High Temp Heat Treat Ovens*), the permittee shall limit emissions of Carbon Monoxide (CO) to no more than 0.080 lb/MMBTU/hr (BACT for CO). (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.11 For Emission Point AH-002b, the permittee shall limit emissions of Carbon Monoxide (CO) to no more than 0.24 lb/hr (BACT for CO). (Ref.: PSD Permit to Construct Issued on June 1, 2012, and modified [DATE])
- 3.B.12 For Emission Point AH-001c (*Heat Treat Oven No.8*), the permittee shall limit emissions of Carbon Monoxide (CO) to no more than 2 tons per year as determined for each consecutive (rolling) twelve month period. (BACT for CO).(Ref.: Federally Enforceable Permit to Construct Issued on September 27, 2004 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.13 For Emission Point AI-001 (*Powder Coat Operation Thermo Set Unit*), the permittee shall limit emissions of Carbon Monoxide (CO) to no more than 0.083 lb/MMBTU/hr (BACT for CO). (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)
- 3.B.14 For Emission Points AB-000, AC-000, AD-000, AE-000, and AF-000 (*Melting and Refining, Casting, Core Making, Pouring and Cooling, and Shakeout and Sand Reclaim Operations*), the permittee is subject to 40 CFR 63 - National Emission Standards for Hazardous Air Pollutants (NESHAP), specifically Subpart EEEEE – National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries, and shall comply with the applicable provisions. (Ref.: 40 CFR 63.7681)
- 3.B.15 For Emission Point AB-001 (*EAFs Baghouse*), the permittee shall limit emissions of Particulate Matter to no more than 0.005 grains per dry standard cubic foot, or emissions of Total Metal HAP to no more than 0.0004 grains per dry standard cubic foot, in accordance with 40 CFR 63.7690(a)(1)(i) and (ii) – NESHAP Subpart EEEEE. (Ref.: 40 CFR 63.7690(a)(1)(i) and (ii))
- 3.B.16 For Emission Point AA-000 (*Entire Facility*), the permittee shall not emit fugitive emissions with an Opacity greater 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity, from any building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, in accordance with 40 CFR 63.7690(a)(7) – NESHAP Subpart EEEEE. (Ref.: 40 CFR 63.7690(a)(7))

- 3.B.17 For Emission Point AF-003 (*Thermal Sand Reclaim Baghouse*), the permittee is subject to 40 CFR CFR 60 – New Source Performance Standards (NSPS), specifically Subpart UUU – New Source Performance Standards for Calciners and Dryers in the Mineral Industry, and shall comply with the applicable provisions upon commencement of construction. (Ref.: 40 CFR 60.730(a) and (c))
- 3.B.18 For Emission Point AF-003 (*Thermal Sand Reclaim Baghouse*), upon commencement of construction in accordance with Condition 3.B.17 of the permit herein, the permittee shall comply with 40 CFR 60.732 and have no emissions that:
- (a) Contain Particulate matter in excess of 0.040 grains per dry standard cubic foot (gr/dscf) for calciners and for calciners and dryers installed in series and in excess of 0.025 gr/dscf for dryers; and
  - (b) Exhibit greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device.
- (Ref.: 40 CFR 63.732)
- 3.B.19 For Emission Points AB-001, AB-002, AB-003, AE-001, AE-002, AF-002, AF-003, AH-003, AH-004, AH-005, and AH-007 (*EAFs Baghouse, AOD Baghouses, Pouring and Cooling Baghouses, No Bake Shakeout and No Bake Shakeout Sand Reclaimer Operation Baghouse, Thermal Sand Reclaim Baghouse, Shotblast Operation Baghouses, and Arc Cutting and Welding Baghouse*), the permittee is subject to Compliance Assurance Monitoring (CAM) and shall comply with the applicable provisions. (Ref.: 40 CFR 64.2(a) and (b)(vi))
- 3.B.20 For Emission Point AA-000 (*Entire Facility*), the permittee shall operate all control devices at all times that the associated equipment for which the control devices are being utilized is in use. The permittee shall operate the control device according to the manufacturer's design and specification requirements and recommendations. (Ref.: PSD Permit to Construct Issued on June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1)(a).)

C. Insignificant and Trivial Activity Emission Limitations & Standards

- 3.C.1 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).)
- 3.C.2 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

## SECTION 4. COMPLIANCE SCHEDULE

- 4.1 Unless otherwise specified herein, the permittee shall be in compliance with all requirements contained herein upon issuance of this permit.
- 4.2 Except as otherwise specified herein, the permittee shall submit to the Permit Board and to the Administrator of EPA Region IV a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, by January 31 for the preceding calendar year. Each compliance certification shall include the following:
- (a) the identification of each term or condition of the permit that is the basis of the certification;
  - (b) the compliance status;
  - (c) whether compliance was continuous or intermittent;
  - (d) the method(s) used for determining the compliance status of the source, currently and over the applicable reporting period;
  - (e) such other facts as may be specified as pertinent in specific conditions elsewhere in this permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C(5)(a), (c), & (d).)



## SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

- A. General Monitoring, Recordkeeping and Reporting Requirements
- 5.A.1 The permittee shall install, maintain, and operate equipment and/or institute procedures as necessary to perform the monitoring and recordkeeping specified below.
- 5.A.2 In addition to the recordkeeping specified below, the permittee shall include with all records of required monitoring information the following:
- (a) the date, place as defined in the permit, and time of sampling or measurements;
  - (b) the date(s) analyses were performed;
  - (c) the company or entity that performed the analyses;
  - (d) the analytical techniques or methods used;
  - (e) the results of such analyses; and
  - (f) the operating conditions existing at the time of sampling or measurement. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(b)(1).)
- 5.A.3 Except where a longer duration is specified in an applicable requirement, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(b)(2).)
- 5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31 and January 31 for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with 11 Miss. Admin. Code Pt. 2, R. 6.2.E. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)
- 5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) days of the time the deviation began. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(2).)
- 5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission

monitoring requirements, if applicable. All test methods shall be those versions or their equivalents approved by the DEQ and the EPA.

- 5.A.7 The permittee shall maintain records of any alterations, additions, or changes in equipment or operation.

B. Specific Monitoring and/or Recordkeeping Requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
<p style="text-align: center;"><b>AA-000</b> <i>(Entire Facility)</i></p>	<p style="text-align: center;">PSD Construction Permit Issued June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R.6.3.A(a &amp; b).</p>	5.B.1	PM/PM <sub>10</sub> /PM <sub>2.5</sub>	Monitoring and Monthly Recordkeeping of Emissions
			CO	
			NO <sub>x</sub>	
			VOC	
			SO <sub>2</sub>	
<p style="text-align: center;"><b>AA-000</b> <i>(Entire Facility)</i></p>	<p style="text-align: center;">PSD Construction Permit Issued June 1, 2012, November 5, 2012, and 11 Miss. Admin. Code Pt. 2, R.6.3.A(a &amp; b).</p>	5.B.2	PM/PM <sub>10</sub> /PM <sub>2.5</sub>	Stack/Performance Testing for demonstrating compliance with Facility Wide Limits, BACT Limits, and Emission Point Specific Limits by Developing Operational Ranges unless specified herein. These Operational Ranges shall be utilized for demonstrating compliance with Monthly Recordkeeping of Emission Rate
			CO	
			NO <sub>x</sub>	
			VOC	
<p style="text-align: center;"><b>AA-000</b> <i>(Entire Facility)</i></p>	<p style="text-align: center;">PSD Construction Permit Issued June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R.6.3.A(a &amp; b).</p>	5.B.3	Fuel Usage	Monitor and Maintain monthly records on the type, quantity, quality, and heating value (BTU/ft <sup>3</sup> ) of fuel combusted
<p style="text-align: center;"><b>AA-000</b> <i>(Entire Facility)</i></p>	<p style="text-align: center;">PSD Construction Permit Issued June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R.6.3.A(a &amp; b).</p>	5.B.4	Control Devices	Maintain Monthly Records Documenting that Control Devices were utilized at all times.

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement
<b>AB-000, AC-000, AD-000, and AF-000</b> ( <i>Melting, Refining and Casting Operations</i> )	40 CFR 63.7700(a) through (d)	5.B.5	40 CFR 63, Subpart EEEEE	Work Practice Standards
	40 CFR 63.7710	5.B.6		Operation and Maintenance Requirements
	40 CFR 63.7731	5.B.7		Subsequent Performance Test
	40 CFR 63.7733	5.B.8		Procedures for Operating Limits
	40 CFR 63.7740(b) and (c)	5.B.9		Continuous Compliance Requirements
	40 CFR 63.7741(b)	5.B.10		Installation, Operation, and Maintenance Requirements for Monitors
	40 CFR 63.7742	5.B.11		Monitor and Collect Data for Demonstrating Continuous Compliance
	40 CFR 63.7743(a)(1, 3 thru 6) and (c)	5.B.12		Demonstrating Continuous Compliance with Emission Limitations
	40 CFR 63.7744(a and b)	5.B.13		Demonstrating Continuous Compliance with Work Practice Standards
	40 CFR 63.7745	5.B.14		Demonstrating Continuous Compliance with Operation and Maintenance Requirements
<b>AF-003</b> ( <i>Thermal Sand Reclaimers</i> )	40 CFR 60.734	5.B.16	40 CFR 60, Subpart UUU	Monitoring
	40 CFR 60.735	5.B.17		Recordkeeping
	40 CFR 60.736	5.B.18		Test Methods and Procedures

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement
<p><b>AB-001, AB-002, AB-003, AE-001, AE-002, AF-002, AF-003, AH-003, AH-004, AH-005, and AH-007</b> <i>(Baghouses for EAF's, AODs, Pouring and Cooling, No Bake Shakeout, Thermal Reclaiming, Shotblasting, and Air Arc Cutting and Welding)</i></p>	<p>40 CFR 63.4(a)</p>	<p>5.B.19</p>	<p>CAM</p>	<p>Compliance with the specific Emission Point Specific Compliance Assurance Monitoring Plan (quick reference, detailed reference in Appendix B)</p>

- 5.B.1 For Emission Point AA-000 (*Entire Facility*), the permittee shall determine and maintain monthly records of the Facility Wide PM, PM10, PM2.5, CO, NOX, VOC, and SO2 Emission Rate as determined for each consecutive 12-month period by utilizing data obtained from Stack/Performance Testing, Natural Gas Usage Records, and any other data necessary to demonstrate compliance with Conditions 3.B.1 thru 3.B.9 of the permit herein. (Ref. PSD Construction Permit Issued June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(a and b).)
- 5.B.2 For Emission Point AA-000 (*Entire Facility*), the permittee shall continue to comply with the operational ranges developed during the emission point specific stack testing for determining compliance with Conditions 3.B.1 through 3.B.5 of the Federally Enforceable Title V Permit Herein as required by the PSD Construction Permit Issued on June 1, 2012 and modified November 5, 2012, specifically Condition IV.2 as directly referenced below. If the permittee elected to utilize reciprocal stack testing in lieu of performing individual stack testing, then any violation of the said operational ranges is a violation of all reciprocal emission points unless the permittee elects to perform stack/performance testing on the reciprocal emission control equipment to demonstrate compliance. If at some point during the life of the permit the operations change such that the operational ranges are no longer representative for demonstrating compliance, then the permittee may petition the DEQ to perform stack testing to demonstrate compliance with these new operational ranges and/or parameters. This petition should be submitted timely and shall not be used as a defense by the permittee for non-compliance.

From Condition IV.2 of the PSD Construction Permit issued on June 1, 2012:

*For Emission Point AA-000 (the Entire Facility), the permittee shall perform an initial stack test according to the table below to develop operational ranges to provide a reasonable assurance of compliance with Conditions III.1 through III.5 of the PSD construction permit herein. The permittee shall utilize those test methods specified in the table or an alternative EPA approved test method. The operational ranges shall be derived from stack test data, vendor certification, operational history, and visual inspections, the combination of which demonstrate the proper operation of the equipment in compliance. For those operations and/or pollution control equipment that are similar such that reciprocal stack testing can be performed in lieu of stack/performance testing each piece of control equipment, the permittee may elect to perform stack/performance testing on one of the control equipment emission points provided that the permittee utilizes this data to determine compliance for all pieces of control equipment that would be considered reciprocal. If the stack/performance testing demonstrates that the permittee is in violation of the emission point, then the permittee will be in violation of all reciprocal emission points unless the permittee elects to perform stack/performance testing on the reciprocal emission control equipment to demonstrate compliance. During the stack/performance test, the permittee shall monitor the Charge Weights and Material, Heat Times including the start and stop times and a log of process operations including periods of no operation during testing, the total amount of sand processed/reclaimed, the control device operation log, and any other data necessary to determine compliance with the short term BACT limits based on metal poured and sand processed/reclaimed.*

<i>Emission Point</i>	<i>Stack ID</i>	<i>Description</i>	<i>Date of Testing</i>	<i>Pollutants to be Tested</i>	<i>Tested Method</i>
AB-003	AA-032	AOD-2	Within 90 days of Reaching Maximum Production Level	PM/PM10	EPA Reference Method 5
				PM2.5	EPA Reference Method 202
				CO	EPA Reference Method 10
				NOx	EPA Reference Method 7E
AC-002	AA-033	No Bake Mold Making	Within 90 days of Reaching Maximum Production Level	PM/PM10	EPA Reference Method 5
				PM2.5	EPA Reference Method 202
				VOC	EPA Reference Method 25A
AE-001	AA-030	Greensand Pouring and Cooling	Within 90 days of Reaching Maximum Production Level	PM/PM10	EPA Reference Method 5
				PM2.5	EPA Reference Method 202
				CO	EPA Reference Method 10
				NOx	EPA Reference Method 7E
				VOC	EPA Reference Method 25A
AE-002	AA-036	No Bake Pouring and Cooling	Within 90 days of Reaching Maximum Production Level	PM/PM10	EPA Reference Method 5
				PM2.5	EPA Reference Method 202
				CO	EPA Reference Method 10
				NOx	EPA Reference Method 7E
				VOC	EPA Reference Method 25A
AF-002	AA-031	No Bake Shakeout and Sand Reclaiming	Within 90 days of Reaching Maximum Production Level	PM/PM10	EPA Reference Method 5
				PM2.5	EPA Reference Method 202
				CO	EPA Reference Method 10
				VOC	EPA Reference Method 25A
AF-003	AA-014	Thermal Sand Reclaim	Within 90 days of Reaching Maximum Production Level	PM/PM10	EPA Reference Method 5
				PM2.5	EPA Reference Method 202
				CO	EPA Reference Method 10
				NOx	EPA Reference Method 7E
				VOC	EPA Reference Method 25A

<i>Emission Point</i>	<i>Stack ID</i>	<i>Description</i>	<i>Date of Testing</i>	<i>Pollutants to be Tested</i>	<i>Tested Method</i>
AH-001b	AH-001b	New High Temp Heat Treat Ovens	Within 90 days of Reaching Maximum Production Level	CO	EPA Reference Method 10
				NOx	EPA Reference Method 7E
AH-002b	AH-002b	New Low Temp Heat Treat Ovens	Within 90 days of Reaching Maximum Production Level	CO	EPA Reference Method 10
				NOx	EPA Reference Method 7E
AH-005	AA-034	Shotblast	Within 90 days of Reaching Maximum Production Level	PM/PM10	EPA Reference Method 5
				PM2.5	EPA Reference Method 202
AH-007	AA-035	4 Air Arc Stations	Within 90 days of Reaching Maximum Production Level	PM/PM10	EPA Reference Method 5
				PM2.5	EPA Reference Method 202
AI-001	AI-001	Powder Coater	Within 90 days of Reaching Maximum Production Level	CO	EPA Reference Method 10
				NOx	EPA Reference Method 7E

(Ref.: PSD Construction Permit Issued June 1, 2012, and November 5, 2012 and APC-S-6, 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(a and b).)

- 5.B.3 For Emission Point AA-000 (*Entire Facility*), the permittee shall monitor and maintain monthly records on the type, quantity, quality, and heating value (BTU/ft<sup>3</sup>) of fuel combusted. (Ref.: PSD Construction Permit Issued June 1, 2012 and APC-S-6, 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(a and b).)
- 5.B.4 For Emission Point AA-000 (*Entire Facility*), the permittee shall maintain monthly records documenting that the control devices were utilized at all times. (Ref.: PSD Construction Permit Issued June 1, 2012 and APC-S-6, 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(a and b).)
- 5.B.5 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply with the following for demonstrating compliance with the



applicable provisions of the Work Practice Standards in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7700:

- (a) For each segregated scrap storage area, bin or pile, the permittee shall either comply with the certification requirements in paragraph (b) of this section, or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of this section. The permittee shall have certain scrap subject to paragraph (b) of this section and other scrap subject to paragraph (c) of this section at your facility provided the scrap remains segregated until charge make-up.
  
- (b) The permittee shall prepare and operate at all times according to a written certification that the foundry purchases and uses only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, mercury switches, plastics, or free organic liquids. For the purpose of this paragraph (b), “free organic liquids” is defined as material that fails the paint filter test by EPA Method 9095A, “Paint Filter Liquids Test” (Revision 1, December 1996), as published in EPA Publication SW-846 “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (incorporated by reference—see 40 CFR 63.14). Any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed and/or cleaned to the extent practicable such that the materials do not include lead components, mercury switches, chlorinated plastics, or free organic liquids can be included in this certification.
  
- (c) The permittee prepare and operate at all times according to a written plan for the selection and inspection of iron and steel scrap to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials used by the iron and steel foundry. This scrap selection and inspection plan is subject to approval by the DEQ. The permittee shall keep a copy of the plan onsite and readily available to all plant personnel with materials acquisition or inspection duties. The permittee shall provide a copy of the material specifications to each of your scrap vendors. Each plan must include the information specified in paragraphs (c)(1) through (3) of this section.
  - (1) A materials acquisition program to limit organic contaminants according to the requirements in paragraph (c)(1)(i) or (ii) of this section, as applicable.
    - (i) For scrap charged to an electric arc metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, organic liquids, and a program to ensure the scrap materials are drained of free liquids; or

- (2) A materials acquisition program specifying that the scrap supplier remove accessible mercury switches from the trunks and hoods of any automotive bodies contained in the scrap and remove accessible lead components such as batteries and wheel weights. The permittee shall either obtain and maintain onsite a copy of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable, or document your attempts to obtain a copy of these procedures from the scrap suppliers servicing your area.
  
- (3) Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming scrap shipments to ensure the materials meet the specifications.
  - (i) The inspection procedures must identify the location(s) where inspections are to be performed for each type of shipment. Inspections may be performed at the scrap supplier's facility. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.
  - (ii) The inspection procedures must include recordkeeping requirements that document each visual inspection and the results.
  - (iii) The inspection procedures must include provisions for rejecting or returning entire or partial scrap shipments that do not meet specifications and limiting purchases from vendors whose shipments fail to meet specifications for more than three inspections in one calendar year.
  - (iv) If the inspections are performed at the scrap supplier's facility, the inspection procedures must include an explanation of how the periodic inspections ensure that not less than 10 percent of scrap purchased from each supplier is subject to inspection.
  
- (d) For each core making line in a new or existing iron and steel foundry, the permittee shall use a binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation as determined by the Material Safety Data Sheet. This requirement does not apply to the resin portion of the binder system.

(Ref.: 40 CFR 63.7700(a through d))

5.B.6 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the

permittee shall comply with the following for demonstrating compliance with the applicable provisions of the Operation and Maintenance Requirements in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7710:

- (a) As required by 40 CFR 63.6(e)(1)(i), the permittee shall always operate and maintain the iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.
  
- (b) The permittee shall prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emissions source subject to a PM, metal HAP, or VOHAP emissions limit in Conditions 3.B.14 through 3.B.16 (40 CFR 63.7690(a)). The operation and maintenance plan also shall include procedures for igniting gases from mold vents in pouring areas and pouring stations that use a sand mold system. This operation and maintenance plan is subject to approval by the DEQ. Each plan shall contain the elements described in paragraphs (b)(1) through (6) of this section.
  - (1) Monthly 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 must include observations of the physical appearance of the equipment ( *e.g.*, presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan must also include requirements to repair the defect or deficiency as soon as practicable.
  - (2) Preventative maintenance plan for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
  - (3) A site-specific monitoring plan for each bag leak detection system. For each bag leak detection system that operates on the triboelectric effect, the monitoring plan shall be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015). This baghouse monitoring plan is subject to approval by the DEQ. The permittee shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan shall address all of the items identified in paragraphs (b)(3)(i) through (v) of this condition.
    - (i) Installation of the bag leak detection system.

- (ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established.
  - (iii) Operation of the bag leak detection system including quality assurance procedures.
  - (iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list.
  - (v) How the bag leak detection system output will be recorded and stored.
- (4) Corrective action plan for each baghouse. The plan shall include the requirement that, in the event a bag leak detection system alarm is triggered, the permittee shall initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions taken may include, but are not limited to:
- (i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
  - (ii) Sealing off defective bags or filter media.
  - (iii) Replacing defective bags or filter media or otherwise repairing the control device.
  - (iv) Sealing off a defective baghouse compartment.
  - (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.
  - (vi) Making process changes.
  - (vii) Shutting down the process producing the PM emissions.
- (5) Procedures for providing an ignition source to mold vents of sand mold systems in each pouring area and pouring station unless you determine the mold vent gases either are not ignitable, ignite automatically, or cannot be ignited due to accessibility or safety issues. The permittee shall document and maintain records of this determination. The determination of ignitability, accessibility, and safety may encompass multiple casting patterns provided the castings utilize similar sand-to-metal ratios, binder

formulations, and coating materials. The determination of ignitability shall be based on observations of the mold vents within 5 minutes of pouring, and the flame must be present for at least 15 seconds for the mold vent to be considered ignited. For the purpose of this determination:

- (i) Mold vents that ignite more than 75 percent of the time without the presence of an auxiliary ignition source are considered to ignite automatically; and
- (ii) Mold vents that do not ignite automatically and cannot be ignited in the presence of an auxiliary ignition source more than 25 percent of the time are considered to be not ignitable.

(Ref.: 40 CFR 63.7710)

5.B.7 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply with the following for demonstrating compliance with the applicable provisions of the Subsequent Performance Test in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.63.7731:

- (a) The permittee shall conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP and VOHAP emissions limitations in Conditions 3.B.14 and 3.B.15 (40 CFR 63.7690) no less frequently than every 5 years and each time you elect to change an operating limit or to comply with a different alternative emissions limit, if applicable. The requirement to conduct performance tests every 5 years does not apply to an emissions source for which a continuous emissions monitoring system (CEMS) is used to demonstrate continuous compliance.
- (b) The permittee shall conduct subsequent performance tests to demonstrate compliance with the opacity limit in Condition 3.B.16 (40 CFR 63.7690(a)(7)) no less frequently than once every 6 months.

(Ref.: 40 CFR 63.7731)

5.B.8 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply with the following for demonstrating compliance with the applicable provisions of the Performance Test Procedures in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7732:

- (a) The permittee shall conduct each performance test that applies to the iron and steel foundry based on the selected compliance alternative, if applicable,

according to the requirements in 40 CFR 63.7(e)(1) and the conditions specified in paragraphs (b) through (i) of this section.

(b) To determine compliance with the applicable emissions limit for PM in Conditions 3.B.14 and 3.B.15 (40 CFR 63.7690(a)(1)(i) through (a)(5)(i)) for a metal melting furnace and pouring station follow the test methods and procedures in paragraphs (b)(1) through (6) of this section.

(1) Determine the concentration of PM according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5, 5B, 5D, 5F, or 5I, as applicable, to determine the PM concentration. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch.

(2) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. A minimum of three valid test runs are needed to comprise a performance test.

(3) For electric arc metal melting furnaces, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping.

(4) Determine the total mass of metal charged to the furnace.

$$EF_{PM} = C_{PM} \times \left( \frac{Q}{M_{Charge}} \right) \times \left( \frac{t_{test}}{7,000} \right) \quad (Eq. 1) \left( \frac{lb}{ton} \right) \text{ of metal} \quad (Eq.1)$$

Where:

$EF_{PM}$  = Mass emissions rate of PM, pounds of PM per ton (lb/ton) of metal charged;

$C_{PM}$  = Concentration of PM measured during performance test run, gr/dscf;

$Q$  = Volumetric flow rate of exhaust gas, dry standard cubic feet per minute (dscfm);

$M_{charge}$  = Mass of metal charged during performance test run, tons;

$t_{test}$  = Duration of performance test run, minutes; and

7,000 = Unit conversion factor, grains per pound (gr/lb).

- (c) To determine compliance with the applicable emissions limit for total metal HAP in Conditions 3.B.14 and 3.B.15 (40 CFR 63.7690(a)(1)(ii) through (a)(5)(ii)) for a metal melting furnace and pouring station follow the test methods and procedures in paragraphs (c)(1) through (6) of this section.
- (1) Determine the concentration of total metal HAP according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (c)(1)(i) through (v) of this section.
    - (i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.
    - (ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.
    - (iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.
    - (iv) Method 4 to determine the moisture content of the stack gas.
    - (v) Method 29 to determine the total metal HAP concentration.
  - (2) A minimum of three valid test runs are needed to comprise a performance test.
  - (3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.

- (4) For electric arc and electric induction metal melting furnaces, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping.
- (5) For scrap preheaters, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, heating, and discharging.
- (6) Determine the total mass of metal charged to the furnace during each performance test run and calculate the total metal HAP emissions rate (pounds of total metal HAP per ton (lb/ton) of metal charged) using Equation 2 of this section:

$$EFT_{MHAP} = C_{TMHAP} \times \left( \frac{Q}{M_{Charge}} \right) \times \left( \frac{t_{test}}{7,000} \right) \quad (Eq. 2)$$

Where:

$EF_{TMHAP}$  = Emissions rate of total metal HAP, pounds of total metal HAP per ton (lb/ton) of metal charged;

$C_{TMHAP}$  = Concentration of total metal HAP measured during performance test run, gr/dscf;

$Q$  = Volumetric flow rate of exhaust gas, dscfm;

$M_{charge}$  = Mass of metal charged during performance test run, tons;

$t_{test}$  = Duration of performance test run, minutes; and

7,000 = Unit conversion factor, gr/lb.

- (d) To determine compliance with the opacity limit in Condition 3.B.16 (40 CFR 63.7690(a)(7)) for fugitive emissions from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry, follow the procedures in paragraphs (d)(1) and (2) of this section.
  - (1) Using a certified observer, conduct each opacity test according to the requirements in EPA Method 9 (40 CFR part 60, appendix A) and 40 CFR 63.6(h)(5). The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or



structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation.

- (2) During testing intervals when PM performance tests, if applicable, are being conducted, conduct the opacity test such the opacity observations are recorded during the PM performance tests.

(Ref.: 40 CFR 63.7732)

5.B.9 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply the following for demonstrating compliance with the applicable provisions of the Continuous Compliance Requirements in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7740:

- (a) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, the permittee shall at all times monitor the relative change in PM loadings using a bag leak detection system according to the requirements in Condition 5.B.10 (40 CFR 63.7741(b)).
- (b) For each baghouse, regardless of type, that is applied to meet any PM or total metal HAP emissions limitation in this subpart, the permittee shall conduct inspections at their specified frequencies according to the requirements specified in paragraphs (c)(1) through (8) of this section.
  - (1) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
  - (2) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
  - (3) Check the compressed air supply for pulse-jet baghouses each day.
  - (4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
  - (5) Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.
  - (6) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on

their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

- (7) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
- (8) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

(Ref.: 40 CFR 63.7740(b) and (c))

5.B.10 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply with the following for determining the applicable provisions of the Installation, Operation, and Maintenance Requirements for Monitors in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7741:

- (b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of this section.
  - (1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
  - (2) The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using electronic or other means ( *e.g.*, using a strip chart recorder or a data logger).
  - (3) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel.
  - (4) The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).
  - (5) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time without approval from the DEQ. Except, once per quarter, the permittee may adjust the

sensitivity of the bag leak detection system to account for reasonable effects including temperature and humidity according to the procedures in the operation and maintenance plan required by Condition 5.B.6 (40 CFR 63.7710(b)).

- (6) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber.
- (7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(Ref.: 40 CFR 63.7741(b))

5.B.11 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply with the following for determining compliance with the applicable provisions of the Monitoring and Collection of Data for Demonstrating Continuous Compliance in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7742:

- (a) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), the permittee shall monitor continuously (or collect data at all required intervals) any time a source of emissions is operating.
- (b) The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels or to fulfill a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing compliance.
- (c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(Ref.: 40 CFR 63.7742)

5.B.12 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply with the applicable provisions of the Demonstration of Continuous Compliance with Emission Limitations in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7743:

- (a) The permittee shall demonstrate continuous compliance by meeting the applicable conditions in paragraphs (a)(1) through (12) of this section. When alternative emissions limitations are provided for a given emissions source, the permittee shall comply with the alternative emissions limitation most recently selected as the compliance alternative.
  - (1) For each electric arc metal melting furnace, at an existing iron and steel foundry,
    - (i) Maintaining the average PM concentration in the exhaust stream at or below 0.005 gr/dscf; or
    - (ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0004 gr/dscf.
  - (2) For each pouring station at an existing iron and steel foundry,
    - (i) Maintaining the average PM concentration in the exhaust stream at or below 0.010 gr/dscf; or
    - (ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0008 gr/dscf.
  - (3) For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, maintaining the opacity of any fugitive emissions from foundry operations discharged to the atmosphere at or below 20 percent opacity (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.
  - (4) Conducting subsequent performance tests at least every 5 years for each emissions source subject to an emissions limit for PM, total metal HAP, or VOHAP in Conditions 3.B.14 and 3.B.15 (40 CFR 63.7690(a)) and subsequent performance tests at least every 6 months for each building or structure subject to the opacity limit in Condition 3.B.17 (40 CFR 63.7690(a)(7)).
- (b) For each baghouse,
  - (1) Inspecting and maintaining each baghouse according to the requirements of Condition 5.B.9 (40 CFR 63.7740(c)(1) through (8)) and recording all information needed to document conformance with these requirements; and
  - (2) If the baghouse is equipped with a bag leak detection system, maintaining records of the times the bag leak detection system sounded, and for each

valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(Ref.: 40 CFR 63.7743(a)(1, 3 thru 6) and (c))

5.B.13 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply with the following for demonstrating compliance with the applicable provisions of the Demonstration of Continuous Compliance with Work Practice Standards in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7744(a through c), by the compliance date.

- (a) The permittee shall maintain records that document continuous compliance with the certification requirements in Condition 5.B.5(b) (40 CFR 63.7700(b)) or with the procedures in the scrap selection and inspection plan required in Condition 5.B.5(c) (40 CFR 63.7700(c)). The records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.
- (b) The permittee shall keep records of the chemical composition of all catalyst binder formulations applied in each core making line to demonstrate continuous compliance with the requirements in Condition 5.B.5(d) (40 CFR 63.7700(d)).

(Ref.: 40 CFR 63.7744(a through b))

5.B.14 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply with the following for determining compliance with the applicable provisions of the Demonstration of Continuous Compliance with Operation and Maintenance Requirements in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7745:

- (a) For each capture system and control device for an emissions source subject to an emissions limit in Condition 3.B.14 through 3.B.16 (40 CFR 63.7690(a)), the permittee shall demonstrate continuous compliance with the operation and maintenance requirements of Condition 5.B.6 (40 CFR 63.7710) by:
  - (1) Making monthly inspections of capture systems and initiating corrective action according to Condition 5.B.6(b)(1) (40 CFR 63.7710(b)(1)) and recording all information needed to document conformance with these requirements;

- (2) Performing preventative maintenance for each control device according to the preventive maintenance plan required by Condition 5.B.6(b)(3) (40 CFR 63.7710(b)(3)) and recording all information needed to document conformance with these requirements;
  - (3) Operating and maintaining each bag leak detection system according to the site-specific monitoring plan required by Condition 5.B.6(b)(4) (40 CFR 63.7710(b)(4)) and recording all information needed to demonstrate conformance with these requirements;
  - (4) Initiating and completing corrective action for a bag leak detection system alarm according to the corrective action plan required by Condition 5.B.6(b)(5) (40 CFR 63.7710(b)(5)) and recording all information needed to document conformance with these requirements; and
  - (5) Igniting gases from mold vents according to the procedures in the plan required by Condition 5.B.6(b)(6) (40 CFR 63.7710(b)(6)). (Any instance where the permittee fails to follow the procedures is a deviation that must be included in your semiannual compliance report.)
- (b) The permittee shall maintain a current copy of the operation and maintenance plans required by Condition 5.B.6(b) (40 CFR 63.7710(b)) onsite and available for inspection upon request. The permittee shall keep the plans for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of 40 CFR 63, Subpart EEEEE.

(Ref.: 40 CFR 63.7745)

5.B.15 For Emission Points AB-000, AC-000, AD-000, and AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply with the following for determining compliance with the applicable provisions of the Recordkeeping Requirements in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7752 and 63.7753:

- (a) The permittee shall keep the records specified in paragraphs (a)(1) through (4) of this section:
  - (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements of 40 CFR 63.10(b)(2)(xiv).
  - (2) The records specified in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

- (3) Records of performance tests and performance evaluations as required by 40 CFR 63.10(b)(2)(viii).
  - (4) Records of the annual quantity of each chemical binder or coating material used to coat or make molds and cores, the Material Data Safety Sheet or other documentation that provides the chemical composition of each component, and the annual quantity of HAP used in these chemical binder or coating materials at the foundry as calculated from the recorded quantities and chemical compositions (from Material Data Safety Sheets or other documentation).
- (b) The permittee shall keep the following records for each CEMS.
- (1) Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
  - (2) Previous ( *i.e.*, superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
  - (3) Request for alternatives to relative accuracy tests for CEMS as required in 40 CFR 63.8(f)(6)(i).
  - (4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- (c) The permittee shall keep the records required by Conditions 5.B.12 through 5.B.14 (40 CFR 63.7743, 63.7744, and 63.7745) to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies to you.
- (d) The permittee shall keep your records in a form suitable and readily available for expeditious review, according to the requirements of 40 CFR 63.10(b)(1).
- (e) As specified in 40 CFR 63.10(b)(1), the permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (f) The permittee shall keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to the requirements in 40 CFR 63.10(b)(1). The permittee can keep the records for the previous 3 years offsite.

(Ref.: 40 CFR 63.7752 and 63.7753)

5.B.16 For Emission Point AF-003 (*Thermal Sand Reclaim Baghouse*), the permittee shall comply with the following for determining compliance with the applicable provisions of the Monitoring in 40 CFR 60, Subpart UUU, specifically 40 CFR 60.734:

- (a) With the exception of the process units described in paragraphs (b), (c), and (d) of this section, the permittee who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.
- (b) In lieu of a continuous opacity monitoring system, the permittee of a ball clay vibrating grate dryer, a bentonite rotary dryer, a diatomite flash dryer, a diatomite rotary calciner, a feldspar rotary dryer, a fire clay rotary dryer, an industrial sand fluid bed dryer, a kaolin rotary calciner, a perlite rotary dryer, a roofing granules fluid bed dryer, a roofing granules rotary dryer, a talc rotary calciner, a titanium dioxide spray dryer, a titanium dioxide fluid bed dryer, a vermiculite fluid bed dryer, or a vermiculite rotary dryer who uses a dry control device may have a certified visible emissions observer measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9 of appendix A of part 60.
- (c) The permittee of a ball clay rotary dryer, a diatomite rotary dryer, a feldspar fluid bed dryer, a fuller's earth rotary dryer, a gypsum rotary dryer, a gypsum flash calciner, gypsum kettle calciner, an industrial sand rotary dryer, a kaolin rotary dryer, a kaolin multiple hearth furnace, a perlite expansion furnace, a talc flash dryer, a talc rotary dryer, a titanium dioxide direct or indirect rotary dryer or a vermiculite expansion furnace who uses a dry control device is exempt from the monitoring requirements of this section.
- (d) The permittee of an affected facility subject to the provisions of this subpart who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5 percent of design scrubbing liquid flow rate.

(Ref.: 40 CFR 60.734)



5.B.17 For Emission Point AF-003 (*Thermal Sand Reclaim Baghouse*), the permittee shall comply with the following for determining compliance with the applicable provisions of the Recordkeeping and Reporting in 40 CFR 60, Subpart UUU, specifically 40 CFR 60.735:

- (a) Records of the measurements required in Condition 5.B.16 (40 CFR 60.734) of this subpart shall be retained for at least 2 years.
- (b) Each permittee who uses a wet scrubber to comply with 40 CFR 60.732 shall determine and record once each day, from the recordings of the monitoring devices in Condition 5.B.16(d) (40 CFR 60.734(d)), an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.
- (c) Each permittee shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored by Condition 5.B.16 (40 CFR 60.734) of this subpart. For the purpose of these reports, exceedances are defined as follows:
  - (1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or
  - (2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in Condition 5.B.17(b) (40 CFR 60.735(b)) that is less than 90 percent of the average value recorded according to Condition 5.B.18(c) (40 CFR 60.736(c)) during the most recent performance test that demonstrated compliance with the particulate matter standard; or
  - (3) Each daily wet scrubber liquid flow rate recorded as described in Condition 5.B.17(b) (40 CFR 60.735(b)) that is less than 80 percent or greater than 120 percent of the average value recorded according to Condition 5.B.18(c) (40 CFR 60.736(c)) during the most recent performance test that demonstrated compliance with the particulate matter standard.
- (d) The requirements of this section remain in force until and unless the DEQ, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by the DEQ. In that event, the permittee will be relieved of the obligation to comply with this section provided that they comply with the requirements established by the DEQ.

(Ref.: 40 CFR 60.735)

5.B.18 For Emission Point AF-003 (*Thermal Sand Reclaim Baghouse*), the permittee shall comply with the following for determining compliance with the applicable provisions of the Test Methods and Procedures in 40 CFR 60, Subpart UUU, specifically 40 CFR 60.736, by the compliance date.

- (a) In conducting the performance tests required in 40 CFR 60.8, the permittee shall use the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b).
- (b) The permittee shall determine compliance with the particulate matter standards in Condition 3.B.19 (40 CFR 60.732) as follows:
  - (1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.
  - (2) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity from stack emissions.
- (c) During the initial performance test of a wet scrubber, the permittee shall use the monitoring devices of Condition 5.B.15(d) (40 CFR 60.734(d)) to determine the average change in pressure of the gas stream across the scrubber and the average flowrate of the scrubber liquid during each of the particulate matter runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of Condition 5.B.18(c) (40 CFR 60.735(c)).

(Ref.: 40 CFR 60.736)

5.B.19 For Emission Points AB-001, AB-002, AB-003, AE-001, AE-002, AF-002, AF-003, AH-003, AH-004, AH-006, and AH-007 (*EAFs Baghouse, AOD Baghouses, Pouring and Cooling Baghouses, No Bake Shakeout and No Bake Shakeout Sand Reclaimer Operation Baghouse, Thermal Sand Reclaim Baghouse, Shotblast Operation Baghouses, and Arc Cutting and Welding Baghouse*), the permittee is subject to the Compliance Assurance Monitoring Provisions of 40 CFR 64 and shall comply with the facility specific Compliance Assurance Monitoring Plan in Appendix B of the Federally Enforceable Title V Permit herein. (Ref.: 40 CFR 63.4(a))

**C. Emission Point Specific Reporting Requirements**

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/Parameter Monitored	Recordkeeping and/or Reporting Requirement
<b>AA-000 (Entire Facility)</b>	PSD Construction Permit Issued June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).	5.C.1	PM/PM <sub>10</sub> /PM <sub>2.5</sub>	Semi-annual Reports Summarizing Emission Rate
			CO	
			NO <sub>x</sub>	
			VOC	
		5.C.2	Fuel Usage	Semi-annual Reports on Type, Quantity, and Heating Value (BTU/ft <sup>3</sup> )
	PSD Construction Permit Issued June 1, 2012, November 5, 2012, and 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).	5.C.3	PM/PM <sub>10</sub> /PM <sub>2.5</sub>	60 Day Notification of Stack/Performance Test to allow MDEQ Observer to be present and submittal of Report within 60 days following Stack/Performance Test
			CO	
			NO <sub>x</sub>	
			VOC	
	PSD Construction Permit Issued June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).	5.C.4	Control Devices	Submit Semi-Annual Reports Documenting that Control Devices were utilized at all times.
11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).				
11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c)(1)	5.C.6	Semi-Annual Reports	Due 30 Days from the semi-annual periods end June 30 and December 31	

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/Parameter Monitored	Recordkeeping and/or Reporting Requirement
<b>AB-003, AE-002, AF-002, AF-003, AH-001b, AH-002b, AH-001c, and AI-001</b>	PSD Construction Permit Issued June 1, 2012 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).	5.C.7	CO	Semi-annual Reports Summarizing Emission Rate for Demonstrating Compliance with Emission Point Specific BACT Limits
<b>AB-000, AC-000, AD-000, and AF-000</b> <i>(Melting, Refining and Casting Operations)</i>	40 CFR 63.7746	5.C.8	40 CFR 63, Subpart EEEEE	Other Requirements
	40 CFR 63.7751	5.C.9		Reports
<b>AF-003</b> <i>(Thermal Sand Reclaimers)</i>	40 CFR 60.735	5.C.10	40 CFR 60, Subpart UUU	Recording and Reporting

- 5.C.1 For Emission Point AA-000 (*Entire Facility*), the permittee shall submit semi-annual reports providing the Particulate Matter/Particulate Matter-10/Particulate Matter-2.5 (PM/PM10/PM2/5), Carbon Monoxide (CO), Nitrogen Oxides (NOX), Volatile Organic Compounds (VOC), and Sulfur Dioxide (SO<sub>2</sub>) Emission Rates in accordance with Condition 5.B.1 for demonstrating compliance with Conditions 3.B.1 through 3.B.6 of the permit herein.. (Ref.: PSD Construction Permit Issued June 1, 2012 and APC-S-6, Section III.A.3.c)
- 5.C.2 For Emission Point AA-000 (*Entire Facility*), the permittee shall submit semi-annual reports on the type, quantity, quality, and heating value (BTU/ft<sup>3</sup>) of fuel combusted for demonstrating compliance with Condition 5.B.3. (PSD Construction Permit Issued June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).)
- 5.C.3 For Emission Point AA-000 (*Entire Facility*), the permittee shall notify the MDEQ at least 60 days in advance of the Stack/Performance Test to allow an Observer of MDEQ to be present during the test. Following the Stack/Performance Test, the permittee shall submit  
the results of the Stack/Performance Test within 60 days from the Stack/Performance  
Test  
date for demonstrating compliance with Condition 5.B.2. (Ref.: PSD Construction  
Permit  
Issued June 1, 2012, November 5, 2012, and 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).)
- 5.C.4 For Emission Point AA-000 (*Entire Facility*), the permittee shall submit semi-annual reports documenting the control devices were operated at all times for demonstrating compliance with Condition 5.B.4. (Ref.: PSD Construction Permit Issued June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).)
- 5.C.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken, within five (5) days of the time the deviation began. The permittee shall include these deviations in the required semi-annual report (Ref.: 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).)
- 5.C.6 For Emission Point AA-000 (*Entire Facility*), except as otherwise specified herein, the permittee shall submit semi-annual reports of any required monitoring. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with 11 Miss. Admin. Code Pt. 2, R.6.2.E. These reports shall be submitted no later than 30 days from the semi-annual periods ending June 30 and December 31. (Ref.: 11 Miss. Admin. Code Pt. 2, R.6.2.E. and 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).)
- 5.C.7 For Emission Points AB-003, AE-002, AF-002, AF-003, AH-001b, AH-002b, AH-001c, and AI-001 (*AOD Baghouse, No Bake Pouring and Cooling Baghouse, No Bake Shakeout and No Bake Sand Reclaimer Baghouse, Thermal Sand Reclaim Baghouse, New High and Low Temperature Heat Treat Ovens, Heat Treat Oven No. 8, Powder*  
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*Coating Thermo Set Unit*), the permittee shall submit semi-annual reports providing the Carbon Monoxide (CO) Emission Rates utilizing the data in Conditions 5.B.1 and 5.B.2 for demonstrating compliance with the BACT Limits in Conditions 3.B.7 through 3.B.12 of the permit herein. (Ref.: PSD Construction Permit Issued June 1, 2012 and 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c).)

5.C.8 For Emission Points AB-000, AC-000, AD-000, AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall comply with the following applicable provisions of the Other Requirements in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7746:

(a) *Deviations.* The permittee shall report each instance in which the permittee did not meet each emissions limitation in Conditions 3.B.14 through 3.B.16 of the permit herein (40 CFR 63.7690) (including each operating limit) that applies to the permittee. This requirement includes periods of startup, shutdown, and malfunction. The permittee shall also report each instance in which the permittee did not meet each work practice standard in Condition 5.B.5 (40 CFR 63.7700) and each operation and maintenance requirement of Condition 5.B.6 (40 CFR 63.7710) that applies to the permittee. These instances are deviations from the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements of Condition 5.C.9 (40 CFR 63.7751).

(b) *Startups, shutdowns, and malfunctions.*

(1) Consistent with the requirements of 40 CFR 63.6(e) and 63.7(e)(1), deviations that occur during DEQ's satisfaction that you were operating in accordance with 40 CFR 63.6(e)(1).

(2) The DEQ will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in 40 CFR 63.6(e).

(Ref.: 40 CFR 63.7746)

5.C.9 For Emission Points AB-000, AC-000, AD-000, AF-000 (*Melting and Refining, Mold Making, Pouring and Cooling, Shakeout and Sand Reclaim Operations*), the permittee shall demonstrate compliance with the following applicable provisions of the Reporting Requirements in 40 CFR 63, Subpart EEEEE, specifically 40 CFR 63.7751:

(a) Compliance report due dates. The permittee shall submit a semiannual compliance report to the DEQ according to the requirements specified in paragraphs (a)(1) through (5).

- (1) The first compliance report shall cover the period beginning June 1, 2012 (1<sup>st</sup> date that source reported subject to Subpart EEEEE) and ending on December 31.
  - (2) The first compliance report must be postmarked or delivered no later than January 31.
  - (3) Each subsequent compliance report must cover the semiannual reporting period from July 1 through December 31.
  - (4) Each subsequent compliance report must be postmarked or delivered no later than January 31.
  - (5) For each iron and steel foundry that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the permittee shall submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of the dates specified in paragraphs (a)(1) through (4) of this section.
- (b) Compliance report contents. Each compliance report must include the information specified in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (8) of this section.
- (1) Company name and address.
  - (2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
  - (3) Date of report and beginning and ending dates of the reporting period.
  - (4) If the permittee had a startup, shutdown, or malfunction during the reporting period and the permittee took action consistent with your startup, shutdown, and malfunction plan, the compliance report shall include the information in 40 CFR 63.10(d)(5)(i).
  - (5) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period.

- (6) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was out-of-control as specified by 40 CFR 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.
  
- (7) For each deviation from an emissions limitation (including an operating limit) that occurs at an iron and steel foundry for which you are not using a continuous monitoring system (including a CPMS or CEMS) to comply with an emissions limitation or work practice standard required in this subpart, the compliance report must contain the information specified in paragraphs (b)(1) through (4) and (b)(7)(i) and (ii) of this section. This requirement includes periods of startup, shutdown, and malfunction.
  - (i) The total operating time of each emissions source during the reporting period.
  - (ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken.
  
- (8) For each deviation from an emissions limitation (including an operating limit) or work practice standard occurring at an iron and steel foundry where the permittee is using a continuous monitoring system (including a CPMS or CEMS) to comply with the emissions limitation or work practice standard in this subpart, the permittee shall include the information specified in paragraphs (b)(1) through (4) and (b)(8)(i) through (xi) of this section. This requirement includes periods of startup, shutdown, and malfunction.
  - (i) The date and time that each malfunction started and stopped.
  - (ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.
  - (iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in 40 CFR 63.8(c)(8).
  - (iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
  - (v) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period.



- (vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes.
  - (vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.
  - (viii) A brief description of the process units.
  - (ix) A brief description of the continuous monitoring system.
  - (x) The date of the latest continuous monitoring system certification or audit.
  - (xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.
- (c) Immediate startup, shutdown, and malfunction report. If the permittee had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan and the source exceeds any applicable emissions limitation in Condition 3.B.14 through 3.B.16 (40 CFR 63.7690), the permittee shall submit an immediate startup, shutdown, and malfunction report according to the requirements of 40 CFR 63.10(d)(5)(ii).
- (d) Part 70 monitoring report. If the permittee has obtained a title V operating permit for an iron and steel foundry pursuant to 40 CFR part 70 or 40 CFR part 71, the permittee shall report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If the permittee submits a compliance report for an iron and steel foundry along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emissions limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the permittee may have to report deviations from permit requirements for an iron and steel foundry to the permitting authority.

(Ref.: 40 CFR 63.7751)

5.C.10 For Emission Point AF-003 (*Thermal Sand Reclaim Baghouse*), the permittee shall comply with the following for demonstrating compliance with the applicable provisions of the Recordkeeping and Reporting in 40 CFR 60, Subpart UUU, specifically 40 CFR 60.735:

- (a) Records of the measurements required in Condition 5.B.16 (40 CFR 60.734) shall be retained for at least 2 years.
- (b) Each permittee who uses a wet scrubber to comply with Condition 5.B.19(b) (40 CFR 60.732(b)) shall determine and record once each day, from the recordings of the monitoring devices in Condition 5.B.16(d) (40 CFR 60.734(d)), an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.
- (c) Each owner or operator shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored by Condition 5.B.16 (40 CFR 60.734). For the purpose of these reports, exceedances are defined as follows:
  - (1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or
  - (2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in Condition 5.B.17(b) (40 CFR 60.735(b)) that is less than 90 percent of the average value recorded according to Condition 5.B.18(c) (40 CFR 60.736(c)) during the most recent performance test that demonstrated compliance with the particulate matter standard; or
  - (3) Each daily wet scrubber liquid flow rate recorded as described in Condition 5.B.17(b) (40 CFR 60.735(b)) that is less than 80 percent or greater than 120 percent of the average value recorded according to Condition 5.B.18(c) (40 CFR 60.736(c)) during the most recent performance test that demonstrated compliance with the particulate matter standard.
- (d) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with this section provided that they comply with the requirements established by the State.

(Ref.: 40 CFR 60.735)



## SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 For Emission Point AB-000 (*Melting and Refining Operations*), the permittee may utilize a combination of oxygen and natural gas (oxy-fuel) to melt the metal in the furnaces to no more than 600 hours per year as determined for each consecutive (rolling) 12 month period. However, at no time can this alternative operating scenario cause an exceedance of the Emission Limitations in Section 3 of the Federally Enforceable Permit Herein, the PSD Construction Permit issued June 1, 2012, and November 5, 2012. During the oxy-fuel melt operations, the permittee shall keep records of the following in addition to Conditions 5.B.1 and 5.B.2 of the permit herein and specifically Condition 5.B.3 for the oxy-fuel and all other fuels used:

- (1) The total hours of operation using the oxy-fuel as determined for each consecutive 12 month period.
- (2) Charge Weights and Material
- (3) Heat Time, including Start and Stop Times
- (4) Log of Process Operations, including periods of no operations during the oxy-fuel operation period.
- (5) Any other data necessary to determine compliance with the emission limitations

6.2 If at any time during the oxy-fuel operation(s) and subsequent emission calculations the permittee determines that the emission limitations established in Section 3 of the Federally Enforceable Permit Herein, the PSD Construction Permit Issued June 1, 2012, and November 5, 2012, cannot be complied with utilizing the oxy-fuel, then the permittee shall either:

- (1) Cease operation of the oxy-fuel and document and keep on site that the oxy-fuel cannot be used due to the existing permit terms and limitations and the permittee will request at either the next permit renewal or significant modification to have this alternative operation scenario language removed, or
- (2) the permittee will submit a modification application for the existing emission limitations to be reevaluated based upon the oxy-fuel.

(Ref.: 11 Miss. Admin. Code Pt. 2, R.6.3.A(1)(a)(1).)

## SECTION 7. TITLE VI REQUIREMENTS

The following are applicable or potentially applicable requirements originating from Title VI of the Clean Air Act – Stratospheric Ozone Protection. The full text of the referenced regulations may be found on-line at <http://ecfr.gpoaccess.gov> under Title 40, or DEQ shall provide a copy upon request from the permittee.

- 7.1 If the permittee produces, transforms, destroys, imports or exports a controlled substance or imports or exports a controlled product, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart A – Production and Consumption Controls.
- 7.2 If the permittee performs service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart B – Servicing of Motor Vehicle Air Conditioners.
- 7.3 The permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart E – The Labeling of Products Using Ozone-Depleting Substances, for the following containers and products:
  - (a) All containers in which a class I or class II substance is stored or transported;
  - (b) All products containing a class I substance; and
  - (c) All products directly manufactured with a process that uses a class I substance, unless otherwise exempted by this subpart or, unless EPA determines for a particular product that there are no substitute products or manufacturing processes for such product that do not rely on the use of a class I substance, that reduce overall risk to human health and the environment, and that are currently or potentially available. If the EPA makes such a determination for a particular product, then the requirements of this subpart are effective for such product no later than January 1, 2015.
- 7.4 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart F – Recycling and Emissions Reduction:
  - (a) Servicing, maintaining, or repairing appliances;
  - (b) Disposing of appliances, including small appliances and motor vehicle air conditioners; or
  - (c) Refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery

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equipment, approved recycling and recovery equipment testing organizations, persons selling class I or class II refrigerants or offering class I or class II refrigerants for sale, and persons purchasing class I or class II refrigerants.

- 7.5 The permittee shall be allowed to switch from any ozone-depleting substance to any acceptable alternative that is listed in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G – Significant New Alternatives Policy Program. The permittee shall also comply with any use conditions for the acceptable alternative substance.
- 7.6 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart H – Halon Emissions Reduction:
- (a) Any person testing, servicing, maintaining, repairing, or disposing of equipment that contains halons or using such equipment during technician training;
  - (b) Any person disposing of halons;
  - (c) Manufacturers of halon blends; or
  - (d) Organizations that employ technicians who service halon-containing equipment.

# APPENDIX A

## List of Abbreviations Used In this Permit

11 Miss. Admin. Code Pt. 2, Ch. 1.	Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants
11 Miss. Admin. Code Pt. 2, Ch. 2.	Permit Regulations for the Construction and/or Operation of Air Emissions Equipment
11 Miss. Admin. Code Pt. 2, Ch. 3.	Regulations for the Prevention of Air Pollution Emergency Episodes
11 Miss. Admin. Code Pt. 2, Ch. 4.	Ambient Air Quality Standards
11 Miss. Admin. Code Pt. 2, Ch. 5.	Regulations for the Prevention of Significant Deterioration of Air Quality
11 Miss. Admin. Code Pt. 2, Ch. 6.	Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act
11 Miss. Admin. Code Pt. 2, Ch. 7.	Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act
BACT	Best Available Control Technology
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
DEQ	Mississippi Department of Environmental Quality
EPA	United States Environmental Protection Agency
gr/dscf	Grains Per Dry Standard Cubic Foot
HP	Horsepower
HAP	Hazardous Air Pollutant
lbs/hr	Pounds per Hour
M or K	Thousand
MACT	Maximum Achievable Control Technology
MM	Million
MMBTUH	Million British Thermal Units per Hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards For Hazardous Air Pollutants, 40 CFR 61
	or
	National Emission Standards For Hazardous Air Pollutants for Source Categories, 40 CFR 63
NMVOC	Non-Methane Volatile Organic Compounds
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter less than 10 µm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration, 40 CFR 52
SIP	State Implementation Plan
SO <sub>2</sub>	Sulfur Dioxide
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOC	Volatile Organic Compound

# **APPENDIX B**

## **40 CFR 64 – SITE SPECIFIC COMPLIANCE** **ASSURANCE MONITORING PLAN**



# APPENDIX C

## 40 CFR 63, SUBPART EEEEE – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR IRON AND STEEL FOUNDRIES

# **APPENDIX D**

## **40 CFR 60, SUBPART UUU – STANDARDS OF PERFORMANCE FOR CALCINERS AND DRYERS IN MINERAL INDUSTRIES**