STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Steel Dynamics Columbus, LLC
1945 Airport Road
Columbus, Lowndes County, Mississippi

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: January 17, 2023

Effective Date: As Specified Herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Krystal Rudolph

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: December 31, 2027 **Permit No.: 1680-00064**

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SECTION 1. GENERAL CONDITIONS

1.1 The permittee must comply with all conditions of this permit. Any permit non-compliance 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 Prior to its expiration, this permit may be reopened in accordance with the provisions listed below.

(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 three (3) or more years. Such a reopening shall be completed no later than eighteen (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 the 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) Re-openings shall not be initiated before a notice of such intent is provided to the Title V source by the Mississippi Department of Environmental Quality (MDEQ) at least thirty (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 MDEQ within a reasonable time any information the MDEQ 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 MDEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to the MDEQ 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 MDEQ 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 Mississippi Administrative Code, Title 11, Part 2, Chapter 6 – "Air Emissions Operating Permit Regulations for Purposes of Title V of the Federal Clean Air Act".

(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).)

(c) 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).)

(d) The fee shall be due September 1of 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 MDEQ 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.)

(e) 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 MDEQ 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 MDEQ, 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, 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 Operating Permit (TVOP). If the permittee submits a timely and complete application, the failure to have a TVOP 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 MDEQ 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 timeframe as provided in other regulations for emergencies] and the notification includes the following:

(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 MDEQ 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 Mississippi Administrative Code, Title 11, Part 2, Chapter 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 Mississippi Administrative Code, Title 11, Part 2, Chapter 2 – "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment" – and may require modification of this permit in accordance with Mississippi Administrative Code, Title 11, Part 2, Chapter 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, Subpart I (or 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 Part 51, Subpart I (or 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 Part 51, Subpart I (or 40 CFR 51.166); or

(f) Any change in ownership of the stationary source.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.C.(15).)

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, silvi-cultural 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 an Emergency Air Pollution Episode Alert imposed by the Executive Director of the MDEQ and must meet the following buffer zones.

(a) Open burning without a forced-draft air system must not occur within five hundred (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 fifty (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 non-compliance 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 Part (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 MDEQ within two (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, start-ups, and shutdowns.

(a) Upsets (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) For an upset, the Commission may pursue an enforcement action for noncompliance with an emission standard or other requirement of an applicable rule, regulation, or permit. In determining whether to pursue enforcement action, and/or the appropriate enforcement action to take, the Commission may consider whether the source has demonstrated through properly signed contemporaneous operating logs or other relevant evidence the following:

(i) An upset occurred and that the source can identify the cause(s) of the upset;

(ii) The source was at the time being properly operated;

(iii) During the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standard or other requirement of an applicable rule, regulation, or permit;

(iv) That within five (5) working days of the time the upset began, the source submitted a written report to the Department describing the upset, the steps taken to mitigate excess emissions or any other non-compliance, and the corrective actions taken and;

(v) That as soon as practicable but no later than twenty-four (24) hours of becoming aware of an upset that caused an immediate adverse impact to human health or the environment beyond the source boundary or

caused a general nuisance to the public, the source provided notification to the Department.

(2) In any enforcement proceeding by the Commission, the source 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.

(4) These upset provisions apply only to enforcement actions by the Commission and are not intended to prohibit EPA or third party enforcement actions.

(b) Start-ups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) Start-ups and shutdowns are part of normal source operation. Emission limitations apply during start-ups and shutdowns unless source specific emission limitations or work practice standards for start-ups and shutdowns are defined by an applicable rule, regulation, or permit.

(2) Where the source is unable to comply with existing emission limitations established under the State Implementation Plan (SIP) and defined in this Mississippi Administrative Code, Title 11, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for start-ups and shutdowns. Source specific emission limitations or work practice standards established for start-ups and shutdowns are subject to the requirements prescribed in Mississippi Administrative Code, Title 11, Part 2, Chapter 1, Rule 1.10.B.(2)(a) through (e).

(3) Where an upset as defined in Rule 1.2 occurs during start-up or shutdown, see the upset requirements above.

(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 Mississippi Administrative Code, Title 11, Part 2, Chapter 1, Rule 1.8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.8.)

1.27 Regarding compliance testing (if applicable):

(a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.

(b) Compliance testing will be performed at the expense of the permittee.

(c) Each emission sampling and analysis report shall include (but not be limited to) the following:

(1) Detailed description of testing procedures;

(2) Sample calculation(s);

(3) Results; and

(4) Comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.6.B.(3), (4), and (6).)

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
AA-000	Facility-Wide (Steel Dynamics Columbus, LLC)
AA-001	Scrap Handling and Process Operations
Melt-Shop Operations	
AA-002[1]	South Melt-Shop Direct Evacuation Control (DEC) System with a Canopy Hood [vents to a baghouse and controls emissions from the South Melt-Shop (Emission Points AA-003, AA-003a, AA-004 and AA-008)]
AA-003	South Electric Arc Furnace (EAF) [emissions are routed to the South Melt-Shop DEC System (Emission Point AA-002)]
AA-003a	South Electric Arc Furnace Lime Injection System with Two (2) Natural Gas-Fired Burners [15.0 MMBTU / hour nominal heat input for each burner; emissions are routed to the South Melt-Shop DEC System (Emission Point AA-002)]
AA-004	South Ladle Metallurgical Furnace (LMF) [emissions are routed to the South Melt-Shop DEC System (Emission Point AA-002)]
AA-005a	South Oxygen Blown Vacuum Tank Degasser (VTD) [equipped with a flare for CO control]
AA-005b	South Vacuum Degassing Boiler [equipped with a nominally-rated 51.0 MMBTU / hour natural gas-fired low NO_X burner]
AB-002[1]	North Melt-Shop Direct Evacuation Control (DEC) System with a Canopy Hood [vents to a baghouse and controls emissions from the North Melt-Shop (Emission Points AB-003, AB-003a, AB-004 and AB-008)]
AB-003	North Electric Arc Furnace (EAF) [emissions are routed to the North Melt-Shop DEC System (Emission Point AB-002)]
AB-003a	North Electric Arc Furnace Lime Injection System with two (2) natural gas-fired burners [15.0 MMBTU / hour nominal heat input for each burner; emissions are routed to the North Melt-Shop DEC System (Emission Point AB-002)]
AB-004	North Ladle Metallurgical Furnace (LMF) [emissions are routed to the North Melt-Shop DEC System (Emission Point AB-002)]
AB-005a	North Oxygen Blown Vacuum Tank Degasser (VTD) [equipped with a flare for CO control]
AB-005b	North Vacuum Degassing Boiler [equipped with a nominally-rated 51.0 MMBTU / hour natural gas-fired low-NO_X burner]
Casting Operations within the Melt-Shop	

Emission Point	Description
AA-006	Three (3) Horizontal Ladle Preheaters [each equipped with a nominally-rated 15.0 MMBTU / hour natural gas-fired low-NO_X burner]
AB-006	Two (2) Horizontal Ladle Preheaters [each equipped with a nominally-rated 15.0 MMBTU / hour natural gas-fired low-NO_X burner]
AA-006a	One (1) Portable Ladle Dryer [equipped with a nominally-rated 15.0 MMBTU / hour natural gas-fired forced draft burner]
AA-007	One (1) Vertical Ladle Preheater [equipped with a nominally-rated 15.0 MMBTU / hour natural gas-fired low-NO_X burner]
AB-007	One (1) Vertical Ladle Preheater [equipped with a nominally-rated 15.0 MMBTU / hour natural gas-fired low-NO_X burner]
AA-008	Line A Continuous Caster [emissions are routed to the South Melt-Shop DEC System (Emission Point AA-002)]
AB-008	Line B Continuous Caster [emissions are routed to the North Melt-Shop DEC System (Emission Point AB-002)]
AA-009	One (1) Tundish Preheater [equipped with a nominally-rated 9.0 MMBTU / hour natural gas-fired low-NO_X burner]
AB-009	Three (3) Tundish Preheaters [each equipped with a nominally-rated 9.0 MMBTU / hour natural gas-fired-low NO_X burner]
AA-010	Portable Tundish Safety Lining Dryer [equipped with a nominally-rated 6.0 MMBTU / hour natural gas-fired low-NO_X burner]
Hot Mill Operations	
AA-011	Line A Tunnel Re-Heat Furnace [equipped with a nominally-rated 150.3 MMBTU / hour natural gas-fired low-NO_X burner]
AB-011	Line B Tunnel Re-Heat Furnace [equipped with a nominally-rated 103.0 MMBTU / hour natural gas-fired low-NO_X burner]
Cold Mill and Acid Pickling Operations	
AA-014	5-Stand Tandem Cold Mill [equipped with an emulsion mist separator]
AA-015a	Hydrochloric Acid Pickling Line [equipped with a packed bed scrubber]
AA-015b	Hydrochloric Acid Pickling Line Boiler [equipped with a nominally-rated 67.0 MMBTU / hour natural gas-fired low-NO_X burner]
AA-025	Continuous Hydrochloric Acid Pickling Line Scale Breaker [equipped with a baghouse]

Emission Point	Description
AB-015a	Push-Pull Hydrochloric Acid Pickling Line [equipped with a packed bed scrubber]
AB-025	Push-Pull Hydrochloric Acid Pickling Line Scale Breaker [equipped with a baghouse]
Galvanizing and Annealing Operations	
AA-016	Eleven (11) Annealing Furnaces [each equipped with a nominally-rated 6.0 MMBTU / hour natural gas-fired low-NO_X burner]
AB-016a	Five (5) Annealing Furnaces [each equipped with a nominally-rated 6.0 MMBTU / hour natural gas-fired low-NO_X burner]
AA-017	No. 1 Galvanizing Line [equipped with a mist eliminator]
AA-017a	No. 1 Galvanizing Line Furnace with Two (2) Natural Gas-Fired Burners [76.2 MMBTU / hour total nominal heat input]
AA-017b	No. 1 Galvanizing Line Furnace [equipped with a nominally-rated 59.5 MMBTU / hour natural gas-fired low-NO_X burner]
AA-017d	No. 1 Galvanizing Line Boiler [equipped with a nominally-rated 24.5 MMBTU / hour natural gas-fired low-NO_X burner]
AB-017	No. 2 Galvanizing Line [equipped with a mist eliminator]
AB-017a	No. 2 Galvanizing Line Furnace with Two (2) Natural Gas-Fired Burners [70.4 MMBTU / hour total nominal heat input]
AC-017	No. 3 Galvanizing Line [equipped with a mist eliminator]
AC-017a	No. 3 Galvanizing Line Radiant Tube Furnace [equipped with a nominally-rated 10.34 MMBTU / hour natural gas-fired low NO_X burner]
AC-017b	No. 3 Galvanizing Line Direct-Fired Furnace [equipped with a nominally-rated 70.63 MMBTU / hour natural gas-fired low NO_X burner]
AC-017c	No. 3 Galvanizing Line Cleaning Section Dryer [equipped with a nominally-rated 1.94 MMBTU / hour natural gas-fired low NO_X burner]
Coil Coating Operations	
AA-030a	Curing Oven [equipped with a nominally-rated 20.0 MMBTU / hour natural gas-fired burner and a closed vent system; emissions are routed to the Thermal Oxidizer (Emission Point AA-030b)]
AA-030b	Thermal Oxidizer [equipped with a nominally-rated 77.0 MMBTU / natural gas-fired burner; controls VOC / HAP emissions from Coil Coating Operations]

Emission Point	Description
AA-030c	Continuous Roll Coating Machine [equipped with a closed vent system; emissions are routed to the Thermal Oxidizer (Emission Point AA-030b)]
AA-030d	Primer and Topcoat Mixing Area [equipped with a closed vent system; emissions are routed to the Thermal Oxidizer (Emission Point AA-030b)]
Facility-Wide Emergency Generators	
AA-022a	2,220 HP (1500 kW) Compression Ignition (CI) Emergency Generator Engine [5.65 MMBTU / hour nominal heat input; constructed in 2006]
AA-022b	2,220 HP (1500 kW) Compression Ignition (CI) Emergency Generator Engine [5.65 MMBTU / hour nominal heat input; constructed in 2006]
AA-022c	2,220 HP (1500 kW) Compression Ignition (CI) Emergency Generator Engine [5.65 MMBTU / hour nominal heat input; constructed in 2006]
AA-022d	2,220 HP (1500 kW) Compression Ignition (CI) Emergency Generator Engine [5.65 MMBTU / hour nominal heat input; constructed in 2006]
AA-022e	755 HP (500 kW) Compression Ignition (CI) Emergency Generator Engine [1.92 MMBTU / hour nominal heat input; constructed in 2008]
AA-022f	2,922 HP (2000 kW) Compression Ignition (CI) Emergency Generator Engine [7.43 MMBTU / hour nominal heat input; constructed in 2010]
AA-022g	145 HP (80 kW) Compression Ignition (CI) Emergency Generator Engine [0.37 MMBTU / hour nominal heat input; constructed in 2012]
AA-022h	470 HP (300 kW) Compression Ignition (CI) Emergency Generator Engine [1.2 MMBTU / hour nominal heat input; constructed in 2012]
AA-022i	97.7 HP (60 kW) Propane-Fired, Spark Ignition (SI) Emergency Generator Engine [0.25 MMBTU / hour nominal heat input; constructed in 2014]
AA-022j	275 HP (206 kW) Compression Ignition (CI) Emergency Fire Pump Engine [0.7 MMBTU / hour nominal heat input; constructed in 2014]
AA-022k	2,922 HP (2000 kW) Compression Ignition (CI) Emergency Generator Engine [7.43 MMBTU / hour nominal heat input; constructed in 2023]
Miscellaneous Facility-Wide Operations and Activities	
AA-018	Slag Processing and Mill Scale Handling Operations
AA-019	Two (2) Cooling Towers
AA-020	Nine (9) Storage Silos and Weight Hoppers with Six (6) Bin Vents

Emission Point	Description
AA-021	Facility-Wide Haul Roads (*fugitive emissions*)
AA-023	Enclosed Dust Handling and Transfer Operations
AA-024	Facility-Wide Insignificant Activities
AA-026	Twelve (12) 20,000-Gallon Hydrochloric Acid Storage Tanks [equipped with scrubbers]
AA-027	Nominal 7 MMBTU / Hour Hydrogen Plant Waste Heat Boiler [this emission source is owned and operated by H2G]
AA-028	On-Site Supplier Operations
AA-029	Auto-thermal Reformer (ATR) [this emission source is owned and operated by H2G]

1 The air emissions from the process equipment in each melt-shop (i.e. EAF, LMF, and continuous caster) were combined and modeled as a single source (i.e. melt-shop baghouse exhaust – Emission Points AA-002 and AB-002) in the air modeling analysis associated with the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007.

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. FACILITY-WIDE EMISSION LIMITATIONS & STANDARDS

3.A.1 Except as otherwise specified or limited herein, the permittee shall not cause or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process that exceeds forty (40) percent opacity subject to the exceptions provided below:

(a) Start-up operations may produce emissions that exceed 40% opacity for up to fifteen (15) minutes per start-up in any one (1) hour and not to exceed three (3) start-ups per stack in any twenty-four (24) hour period.

(b) Emissions resulting from soot blowing operations (i.e. ash removal) shall be permitted provided such emissions do not exceed sixty percent (60%) opacity and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one (1) hour.

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

3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause or allow the discharge into the ambient air from any point source any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity equivalent to that provided in Condition 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets.

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

3.A.3 The permittee shall not cause or allow the emission of particles or any contaminants in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create a condition of air pollution.

(a) The permittee shall not cause or permit the handling, transporting, or storage of any material in a manner, which allows or may allow unnecessary amounts of particulate matter to become airborne.

(b) When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance to property other than that from which it originated or to violate any other provision of 11 Miss. Admin. Code Pt. 2, Ch. 1, the Commission may order such corrected in a way that all air and gases or air and gas-borne material leaving the building or equipment are controlled or removed prior to discharge to the open air.

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

B. EMISSION POINT SPECIFIC EMISSION LIMITATIONS & STANDARDS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit/Standard
AA-000 (Facility-Wide)	11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).	3.B.1	PM (filterable) (from manufacturing processes)	$E = 4.1 \cdot (p^{0.67})$ Where "p" is the process weight input in tons per hour
	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct modified August 27, 2007 **(PSD BACT Limit)**	3.B.2	Steel Production	3,400,000.0 tpy (Rolling 12-Month Total)
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the PSD Permit to Construct modified August 27, 2007 **(Major Source Avoidance Limits)**	3.B.3	HAPs	9.90 tpy (Individual) 24.90 tpy (Total) (Rolling 12-Month Totals)
AA-001 AA-002 AA-003 AB-002 AB-003	40 CFR Part 63, Subpart YYYYY – NESHAP for Area Sources: Electric Arc Furnace Steelmaking Facilities 40 CFR 63.10680(a), (b), and 63.10690(a); Subpart YYYYY	3.B.4	HAPs	General Applicability
AA-002 AA-003 AA-023 AB-002 AB-003	40 CFR Part 60, Subpart AAa – Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983 40 CFR 60.270a; Subpart AAa	3.B.5	PM (filterable)	General Applicability
AA-002 AA-005a AB-002 AB-005b	40 CFR Part 64 – Compliance Assurance Monitoring (CAM) 40 CFR 64.2(a); CAM	3.B.6	PM_{10} (filterable only) CO	General Applicability
AA-002 AB-002	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Limits)**	3.B.7	PM_{10} (filterable only)	0.0018 Grains / dscf (Each Baghouse)
		3.B.8	Lead	0.000871 Pounds / Ton of Steel Produced; 0.305 Pounds / Hour and 0.74 tpy (Rolling 12-Month Total) (Each Baghouse)
	40 CFR 60.272a(a); Subpart AAa 40 CFR 63.10686(a) and (b); Subpart YYYYY	3.B.9	PM (filterable)	0.0052 Grains / dscf (Each Baghouse)

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit/Standard
AA-002 AB-002	40 CFR 60.272a(a); Subpart AAa 40 CFR 63.10686(a) and (b); Subpart YYYYY	3.B.9	Opacity	≤ 3% from Each Baghouse
				≤ 6% from the Roof Vents / Melt-Shop
AA-003 AB-003	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Limits)**	3.B.10	NO_X	0.35 Pounds / Ton of Steel Produced; 122.5 Pounds / Hour and 297.5 tpy (Rolling 12-Month Total) (Each EAF)
		3.B.11	CO	2.0 Pounds / Ton of Steel Produced; 700.0 Pounds / Hour and 1,700.0 tpy (Rolling 12-Month Total) (Each EAF)
		3.B.12	SO_2	0.2 Pounds / Ton of Steel Produced; 70.0 Pounds / Hour and 170.0 tpy (Rolling 12-Month Total) (Each EAF)
		3.B.13	VOCs	0.13 Pounds / Ton of Steel Produced; 45.5 Pounds / Hour and 110.5 tpy (Rolling 12-Month Total) (Each EAF)
AA-003a AA-006a AB-003a	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued May 1, 2014	3.B.14	Opacity	≤ 10% (6-Minute Average)
		3.B.15	SO_2	Only Combust Natural Gas
AA-003a AA-005b AA-006 AA-006a AA-007 AA-011 AA-015b AA-017a AA-017b AA-017d AA-030a AA-030b AB-003a AB-005b AB-006 AB-007 AB-011 AB-017a AC-017a AC-017b	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.16	PM (filterable) (from fossil fuel combustion)	$E = 0.8808 \cdot (I^{-0.1667})$

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit/Standard
AA-005b AA-006 AA-007 AA-009 AA-010 AA-011 AA-015b AA-016 AA-017a AA-017d AB-005b AB-006 AB-007 AB-009 AB-011 AB-016a AB-017a	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Standard)**	3.B.17	PM_{10} SO_2 NO_X CO VOCs H_2SO_4 (AA-011 and AB-011 only)	Only Combust Natural Gas
AA-004 AB-004	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Limits)**	3.B.18	NO_X	0.02 Pounds / Ton of Steel Produced; 6.93 Pounds / Hour and 16.83 tpy (Rolling 12-Month Total) (Each LMF)
		3.B.19	CO	0.05 Pounds / Ton of Steel Produced; 17.325 Pounds / Hour and 42.075 tpy (Rolling 12-Month Total) (Each LMF)
		3.B.20	SO_2	0.08 Pounds / Ton of Steel Produced; 27.72 Pounds / Hour and 67.32 tpy (Rolling 12-Month Total) (Each LMF)
		3.B.21	VOCs	0.005 Pounds / Ton of Steel Produced; 1.7325 Pounds / Hour and 4.2075 tpy (Rolling 12-Month Total) (Each LMF)
AA-005a AB-005a	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Limits)**	3.B.22	CO	7.32 Pounds / Heat Cycle and 10.95 tpy (Rolling 12-Month Total) (Each Flare)
AA-005b AA-015b AA-017d AB-005b	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Limits)**	3.B.23	NO_X	0.08 Pounds / MMBTU (Each Unit) 4.08 Pounds / Hour for AA-005b 5.36 Pounds / Hour for AA-015b 1.96 Pounds / Hour for AA-017d 4.08 Pounds / Hour for AB-005b

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit/Standard
AA-005b AA-015b AA-017d AB-005b	40 CFR Part 60, Subpart Dc – Standards of Performance for Small Industrial, Commercial, and Institutional Steam Generating Units 40 CFR 60.40c(a); Subpart Dc	3.B.24	PM SO_2	General Applicability
AA-005b AA-006 AA-007 AA-009 AA-010 AA-015b AA-016 AA-017a AA-017d AB-005b AB-006 AB-007 AB-009 AB-016a AB-017a	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Limits)**	3.B.25	CO	0.084 Pounds / MMBTU (Each Unit) 4.28 Pounds / Hour for AA-005b 4.28 Pounds / Hour for AB-005b 3.78 Pounds / Hour for AA-006 2.52 Pounds / Hour for AB-006 1.26 Pounds / Hour for AA-007 1.26 Pounds / Hour for AB-007 0.76 Pounds / Hour for AA-009 2.27 Pounds / Hour for AB-009 0.5 Pounds / Hour for AA-010 5.63 Pounds / Hour for AA-015b 5.54 Pounds / Hour for AA-016 2.52 Pounds / Hour for AB-016a 6.4 Pounds / Hour for AA-017a 5.91 Pounds / Hour for AB-017a 2.06 Pounds / Hour for AA-017d
AA-006 AA-007 AA-009 AA-010 AA-011 AA-016 AB-006 AB-007 AB-009 AB-011 AB-016a	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Limits)**	3.B.26	NO_X	0.1 Pounds / MMBTU (Each Unit) 4.5 Pounds / Hour for AA-006 3.0 Pounds / Hour for AB-006 1.5 Pounds / Hour for AA-007 1.5 Pounds / Hour for AB-007 0.9 Pounds / Hour for AA-009 2.7 Pounds / Hour for AB-009 0.6 Pounds / Hour for AA-010 15.03 Pounds / Hour for AA-011 10.03 Pounds / Hour for AB-011 6.6 Pounds / Hour for AA-016 3.0 Pounds / Hour for AB-016a
AA-011 AB-011	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Limits)**	3.B.27	CO	0.066 Pounds / MMBTU (Each Unit) 9.92 Pounds / Hour for AA-011 6.8 Pounds / Hour for AB-011
		3.B.28	VOCs	0.006 Pounds / MMBTU (Each Unit) 0.9 Pounds / Hour for AA-011 0.62 Pounds / Hour for AB-011

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit/Standard
AA-015a AB-015a	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Limits)**	3.B.29	HCl	18.0 ppm_v (Each Unit)
AA-017a AA-017b	11 Miss. Admin. Code Pt. 2, R. 2.15.C., as established in the Title V Operating Permit modified September 26, 2019	3.B.30	NO_X	42.64 tpy (Combined Total; Rolling 12-Month Total)
AA-017a AB-017a	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Limits)**	3.B.31	NO_X	0.15 Pounds / MMBTU (Each Unit) 11.43 Pounds / Hour for AA-017a 10.56 Pounds / Hour for AB-017a
AA-020	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 **(PSD BACT Limit)**	3.B.32	PM / PM_{10} (filterable only)	0.01 Grains / dscf
AA-023	40 CFR 60.272a(b); Subpart AAa	3.B.33	Opacity	≤ 10% from Dust Handling and Transfer Operations
AA-022a through AA-022k	40 CFR Part 63, Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines 40 CFR 63.6585(a) and (c), 63.6590(a)(2) and (c)(1); Subpart ZZZZ	3.B.34	HAPs	General Applicability
AA-022a through AA-022h AA-022j AA-022k	40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60.4200(a)(2); Subpart IIII	3.B.35	NMHC + NO_X CO PM	General Applicability
	40 CFR 60.4205(a), (b), (c), and 60.4206; Subpart IIII	3.B.36		Emission Standards
	40 CFR 60.4207(b); Subpart IIII	3.B.37	Fuel Requirement	15 ppm Sulfur Content (Max.); and 40 Cetane Index (Min.) or 35% Aromatic Content (Max. – by volume)

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit/Standard
AA-022i	40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines 40 CFR 60.4230(a)(4)(iv); Subpart JJJJ	3.B.38	NO_X CO VOCs	General Applicability
	40 CFR 60.4233(d) and 60.4234; Subpart JJJJ	3.B.39		Emission Standards
AA-022a through AA-022k	40 CFR 60.4211(f)(1) – (3); Subpart IIII 40 CFR 60.4243(d)(1) – (3); Subpart JJJJ	3.B.40	Operational Requirements	100 Hours / Calendar Year for Maintenance and Readiness Testing; 50 Hours / Calendar Year for Non-Emergency Situations
AA-029	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit modified September 26, 2019	3.B.41	Bypass Hours	≤ 2,000.0 Hours / Year of Bypassing the Hydrogen Plant Waste Heat Boiler Burner (Emission Point AA-027) and Venting to the Atmosphere
AA-030a through AA-030d	40 CFR Part 60, Subpart TT – Standards of Performance for Metal Coil Surface Coating 40 CFR 60.460; Subpart TT	3.B.42	VOCs from coil coating	General Applicability
	40 CFR 60.462(a)(3); Subpart TT	3.B.43		10.0% of Total VOCs Applied Each Month (90.0% Emission Reduction)
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued January 22, 2016 **(PSD Avoidance Limits)**	3.B.44	VOCs from coil coating	1.0% of Total VOCs Applied Each Month (99.0% Emission Reduction)
		3.B.45		39.0 tpy (Rolling 12-Month Total)
		3.B.46		Operate the Closed Vent System and Thermal Oxidizer at All Times When VOC-Containing Coatings are Applied
AA-030a AA-030c AA-030d	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued January 22, 2016 **(PSD Avoidance Limit)**	3.B.47	VOCs from coil coating	Maintain 100% Capture Efficiency for the Closed Vent System

3.B.1 For Emission Point AA-000 (Facility-Wide – for manufacturing processes), except as otherwise specified herein or limited herein, the permittee shall not cause or allow the emission of particulate matter (PM) in total quantities in any one (1) hour from any manufacturing process (which includes any associated stacks, vents, outlets, or combination thereof) to exceed the amount determined by the following relationship:

$$E = 4.1 \cdot (p^{0.67})$$

Where "E" is the emission rate in pounds per hour and "p" is the process weight input rate in tons per hour. Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs.

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

3.B.2 For Emission Point AA-000 (Facility-Wide), the permittee shall limit the throughput of steel produced to no more than 3,400,000.0 tons per year (tpy) based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct modified August 27, 2007 – PSD BACT Limit)

3.B.3 For Emission Point AA-000 (Facility-Wide), the permittee shall limit the emission of hazardous air pollutants (HAPs) to no more than 9.90 tpy for any single HAP and no more than 24.90 tpy for all HAPs in total based on rolling 12-month totals.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the PSD Permit to Construct modified August 27, 2007 – Major Source Avoidance Limits)

3.B.4 For Emission Points AA-001, AA-002, AA-003, AB-002, and AB-003, the permittee is subject to and shall comply with all applicable requirements found in 40 CFR Part 63, Subpart YYYYY – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Area Sources: Electric Arc Furnace Steelmaking Facilities and 40 CFR Part 63, Subpart A – General Provisions (as required in Table 1 of Subpart YYYYY).

(Ref.: 40 CFR 63.10680(a), (b), and 63.10690(a); Subpart YYYYY)

3.B.5 For Emission Points AA-002, AA-003, AA-023, AB-002, and AB-003, the permittee is subject to and shall comply with all applicable requirements found in 40 CFR Part 60, Subpart AAa – Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983.

(Ref.: 40 CFR 60.270a; Subpart AAa)

3.B.6 For Emission Points AA-002, AB-002, AA-005a, and AB-005b, the permittee is subject to and shall comply with all applicable requirements of 40 CFR Part 64 – Compliance Assurance Monitoring (CAM).

(Ref.: 40 CFR 64.2(a); Compliance Assurance Monitoring)

3.B.7 For Emission Points AA-002 and AB-002, the permittee shall limit the emission of particulate matter less than 10 microns (μm) in diameter (PM_{10}; filterable only) from each baghouse to no more than 0.0018 grains per dry standard cubic foot (gr./dscf).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limit)

3.B.8 For Emission Points AA-002 and AB-002, the permittee shall limit the emission of lead from each baghouse to no more than 0.000871 pounds per ton of steel produced (based on a 3-hour average), 0.305 pounds per hour (based on a 3-hour average), and 0.74 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. And 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.9 For Emission Points AA-002 and AB-002, the permittee shall operate and maintain a capture system that collects the emissions from each electric arc furnace (EAF) (including charging, melting, and tapping operations) and conveys the collected emissions to a control device for the removal of particulate matter (PM). The permittee shall only discharge to the atmosphere gases that comply with the following limitations:

(a) No more than 0.0052 gr./dscf of PM (filterable) from each baghouse; and

(b) No more than three percent (3%) opacity from each baghouse; and

(c) No more than six percent (6%) opacity from the melt shop due solely to the operation of an EAF.

(Ref.: 40 CFR 60.272a(a); Subpart Aaa)

(Ref.: 40 CFR 63.10686(a) and (b); Subpart YYYYY)

3.B.10 For Emission Points AA-003 and AB-003, the permittee shall limit the emission of nitrogen oxides (NO_X) from each EAF to no more than 0.35 pounds per ton of steel produced (based on a rolling 13-week average), 122.5 pounds per hour (based on a rolling 168-hour average), and 297.5 tpy based on a rolling 12-month total.

Additionally, the permittee shall at all times route emissions from each EAF to the corresponding direct evacuation control (DEC) system (Emission Point AA-002 or AB-002).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.11 For Emission Point AA-003 and AB-003, the permittee shall limit the emission of carbon monoxide (CO) from each EAF to no more than 2.0 pounds per ton of steel produced (based on a rolling 13-week average), 700.0 pounds per hour (based on a rolling 168-hour average), and 1,700.0 tpy based on a rolling 12-month total (Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.12 For Emission Points AA-003 and AB-003, the permittee shall limit the emission of sulfur dioxide (SO_2) from each EAF to no more than 0.2 pounds per ton of steel produced (based on a rolling 13-week average), 70.0 pounds per hour (based on a rolling 168-hour average), 170.0 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.13 For Emission Points AA-003 and AB-003, the permittee shall limit the emission of volatile organic compounds (VOCs) from each EAF to no more than 0.13 pounds per ton of steel produced (based on a 3-hour average), 45.5 pounds per hour (based on a 3-hour average), and 110.5 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.14 For Emission Points AA-003a, AA-006a, and AB-003a, the permittee shall not cause or allow the discharge of any air contaminants that exhibit more than ten percent (10%) opacity based on a 6-minute average.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued May 1, 2014)

3.B.15 For Emission Points AA-003a, AA-006a, and AB-003a, the permittee shall limit the emission of SO_2 by only combusting natural gas.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued May 1, 2014)

3.B.16 For Emission Points AA-003a, AA-005b, AA-006 AA-006a, AA-007, AA-011, AA-015b, AA-017a AA-017b, AA-017d, AA-030a, AA-030b, AB-003a, AB-005b, AB-006, AB-007, AB-011, AB-017a, AC-017a, and AC-017b, the emission of ash and/or PM from any fossil fuel burning installation with a heat input equal to / greater than ten (10) MMBTU per hour but less than 10,000 MMBTU per hour shall not exceed an emission rate as determined by the following relationship:

$$E = 0.8808 \cdot (I^{-0.1667})$$

where “E” is the emission rate in pounds per MMBTU per hour heat input and “I” is the heat input in MMBTU per hour.

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

3.B.17 For Emission Points AA-005b, AA-006, AA-007, AA-009, AA-010, AA-011, AA-015b, AA-016, AA-017a, AA-017d, AB-005b, AB-006, AB-007, AB-009, AB-011, AB-016a,

and AB-017a, the permittee shall limit the emission of PM_{10}, SO_2, NO_X, CO, and VOCs, by only combusting natural gas.

For Emission Points AA-011 and AB-011, the permittee shall limit the emission of sulfuric acid mist by only combusting natural gas.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Standard)

3.B.18 For Emissions Points AA-004 and AB-004, the permittee shall limit the emission of NO_X from each ladle metallurgical furnace (LMF) to no more than 0.02 pounds per ton of steel produced (based on a rolling 13-week average), 6.93 pounds per hour (based on a rolling 168-hour average), and 16.83 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.19 For Emission Points AA-004 and AB-004, the permittee shall limit the emission of CO from each LMF to no more than 0.05 pounds per ton of steel produced (based on a rolling 13-week average), 17.325 pounds per hour (based on a rolling 168-hour average), and 42.075 tpy year based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.20 For Emission Points AA-004 and AB-004, the permittee shall limit the emission of SO_2 from each LMF to no more than 0.08 pounds per ton of steel produced (based on a rolling 13-week average), 27.72 pounds per hour (based on a rolling 168-hour average), and 67.32 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.21 For Emission Points AA-004 and AB-004, the permittee shall limit the emission of VOCs from each LMF to no more than 0.005 pounds per ton of steel produced (based on a 3-hour average), 1.7325 pounds per hour (based on a 3-hour average), and 4.2075 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.22 For Emission Point AA-005a and AB-005a, the permittee shall limit the emission of CO from each flare to no more than 7.32 pounds per heat cycle and 10.95 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.23 For Emission Points AA-005b, AA-015b, AA-017d, and AB-005b, the permittee shall utilize low-NO_X burners and limit the emission of NO_X from each unit to no more than 0.08 pounds per MMBTU heat input. Additionally, the permittee shall comply with the following NO_X emission limitations (based on a 3-hour average):

(a) For Emission Points AA-005b and AB-005b, no more than 4.08 pounds per hour for each boiler;

(b) For Emission Point AA-015b, no more than 5.36 pounds per hour; and

(c) For Emission Point AA-017d, no more than 1.96 pounds per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.24 For Emission Points AA-005b, AA-015b, AA-017d, and AB-005b, the permittee is subject to and shall comply with the applicable requirements found in 40 CFR Part 60, Subpart Dc – Standards of Performance for Small Industrial, Commercial, and Institutional Steam Generating Units.

(Ref.: 40 CFR 60.40c(a); Subpart Dc)

3.B.25 For Emission Points AA-005b, AA-006, AA-007, AA-009, AA-010, AA-015b, AA-016, AA-017a, AA-017d, AB-005b, AB-006, AB-007, AB-009, AB-016a, and AB-017a, the permittee shall utilize low-NO_X burners and limit the emission of CO from each unit to no more than 0.084 pounds per MMBTU heat input. Additionally, the permittee shall comply with the following CO emission limitations (based on a 3-hour average):

(a) For Emission Points AA-005b and AB-005b, no more than 4.28 pounds per hour from each boiler;

(b) For Emission Point AA-006, no more than 3.78 pounds per hour;

(c) For Emission Point AB-006, no more than 2.52 pounds per hour;

(d) For Emission Points AA-007 and AB-007, no more than 1.26 pounds per hour from each unit;

(e) For Emission Point AA-009, no more than 0.76 pounds per hour;

(f) For Emission Point AB-009, no more than 2.27 pounds per hour;

(g) For Emission Point AA-010, no more than 0.5 pounds per hour;

(h) For Emission Point AA-015b, no more than 5.63 pounds per hour;

(i) For Emission Point AA-016, no more than 5.54 pounds per hour;

(j) For Emission Point AB-016a, no more than 2.52 pounds per hour;

(k) For Emission Point AA-017a, no more than 6.4 pounds per hour;

(l) For Emission Point AB-017a, no more than 5.91 pounds per hour; and

(m) For Emission Point AA-017d, no more than 2.06 pounds per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.26 For Emission Points AA-006, AA-007, AA-009, AA-010, AA-011, AA-016, AB-006, AB-007, AB-009, AB-011, and AB-016a, the permittee shall utilize low-NO_X burners and limit the emission of NO_X from each unit to no more than 0.1 pounds per MMBTU heat input. Additionally, the permittee shall comply with the following NO_X emission limitations:

(a) For Emission Point AA-006, no more than 4.5 pounds per hour;

(b) For Emission Point AB-006, no more than 3.0 pounds per hour;

(c) For Emission Points AA-007 and AB-007, no more than 1.5 pounds per hour from each unit;

(d) For Emission Point AA-009, no more than 0.9 pounds per hour;

(e) For Emission Point AB-009, no more than 2.7 pounds per hour;

(f) For Emission Point AA-010, no more than 0.6 pounds per hour;

(g) For Emission Point AA-011, no more than 15.03 pounds per hour;

(h) For Emission Point AB-011, no more than 10.3 pounds per hour;

(i) For Emission Point AA-016, no more than 6.6 pounds per hour; and

(j) For Emission Point AB-016a, no more than 3.0 pounds per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.27 For Emission Points AA-011 and AB-011, the permittee shall utilize low-NO_X burners and limit the emission of CO to no more than 0.066 pounds per MMBTU heat input. Additionally, the permittee shall comply with the following CO emission limitations:

(a) For Emission Point AA-011, no more than 9.92 pounds per hour; and

(b) For Emission Point AB-011, no more than 6.8 pounds per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.28 For Emission Points AA-011 and AB-011, the permittee shall utilize low-NO_X burners and limit the emission of VOCs from each unit to no more than 0.006 pounds per MMBTU heat input. Additionally, the permittee shall comply with the following VOC emission limitations:

(a) For Emission Point AA-011, no more than 0.90 pounds per hour; and

(b) For Emission Point AB-011, no more than 0.62 pounds per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.29 For Emission Points AA-015a and AB-015a, the permittee shall limit the emission of hydrochloric acid mist (HCl) from each unit to no more than eighteen (18.0) parts per million by volume (ppmv) based on a 3-hour average.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limit)

3.B.30 For Emission Points AA-017a and AA-017b, the permittee shall limit the total combined emission of NO_X to no more than 42.64 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.15.C., as established in the Title V Operating Permit modified September 26, 2019)

3.B.31 For Emission Points AA-017a and AB-017a, the permittee shall utilize low-NO_X burners and limit the emission of NO_X from each unit to no more than 0.15 pounds per MMBTU heat input. Additionally, the permittee shall comply with the following NO_X emission limitations (based on a 3-hour average):

(a) For Emission Point AA-017a, no more than 11.43 pounds per hour; and

(b) For Emission Point AB-017a, no more than 10.56 pound per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Limits)

3.B.32 For Emission Point AA-020, the permittee shall utilize bin vent filters and limit the emission of PM and PM_{10} (filterable only) to no more than 0.01 gr./dscf.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 – PSD BACT Limit)

3.B.33 For Emission Point AA-023, the permittee shall not cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit ten percent (10%) opacity or greater.

(Ref.: 40 CFR 60.272a(b); Subpart AAa)

3.B.34 For Emission Points AA-022a through AA-022k, the permittee is subject to and shall comply with the applicable requirements found in 40 CFR Part 63, Subpart ZZZZ – NESHAP from Stationary Reciprocating Internal Combustion Engines (RICE) and 40 CFR Part 63, Subpart A – General Provisions (as required in Table 8 of Subpart ZZZZ).

For the purpose of this permit, Emission Points AA-022a through AA-022k are "new" stationary RICE as construction commenced after June 12, 2006. Therefore, the permittee shall comply with Subpart ZZZZ by complying with the requirements found in 40 CFR Part 60, Subpart IIII and 40 CFR Part 60, Subpart JJJJ. No further requirements apply for such engines under Subpart ZZZZ.

(Ref.: 40 CFR 63.6585(a) and (c), 63.6590(a)(2) and (c)(1); Subpart ZZZZ)

3.B.35 For Emission Points AA-022a through AA-022h, AA-022j, and AA-022k, the permittee is subject to and shall comply with the applicable requirements found in 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) and 40 CFR Part 60, Subpart A – General Provisions (as required in Table 8 of Subpart IIII).

(Ref.: 40 CFR 60.4200(a)(2); Subpart IIII)

3.B.36 For Emission Points AA-022a through AA-022h, AA-022j, and AA-022k, the permittee shall comply with the corresponding emission standards (in grams per kilowatt-hour) for each engine found in the following tables. The model years listed indicate the model years for which the specified tier of standards take effect.

(a) For pre-2007 model year emergency stationary CI ICE, that are not fire pump engines [Emission Points AA-022a through AA-022d], the permittee must comply with the following emission standards:

Rated Power (kW)	Model Year	HC	NO_X	CO	PM
kW > 560	Pre-2007	1.3	9.2	11.4	0.54

(b) For 2007 model year and later emergency stationary CI ICE, that are not fire pump engines [Emission Points AA-022e through AA-022h and AA-022k], the permittee must comply with the following emission standards:

Rated Power (kW)	Tier	Model Year	NMHC + NO_X	CO	PM
75 ≤ kW < 130	Tier 3	2007	4.0	5.0	0.30
130 ≤ kW ≤ 560	Tier 3	2006	4.0	3.5	0.20
kW > 560	Tier 2	2006	6.4	3.5	0.20

(c) For fire pump engines [Emission Point AA-022j], the permittee must comply with the following emission standards:

Rated Power (kW)	Tier	Model Year	NMHC + NO_X	CO	PM
130 ≤ kW < 225	Tier 3	2009	4.0	3.5	0.20

The permittee shall operate and maintain each engine in such a manner to achieve the referenced emission standards over the entire life of the engine.

(Ref.: 40 CFR 60.4205(a), (b), (c), and 60.4206; Subpart IIII)

3.B.37 For Emission Points AA-022a through AA-022h, AA-022j, and AA-022k, the permittee shall only combust diesel fuel within each engine that meets the following requirements (on a per-gallon basis):

(a) A maximum sulfur content of fifteen (15) ppm; and

(b) A minimum cetane index of forty (40) or a maximum aromatic content of thirty-five (35) volume percent.

(Ref.: 40 CFR 60.4207(b); Subpart IIII)

3.B.38 For Emission Point AA-022i, the permittee is subject to and shall comply with the applicable requirements found in 40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE) and 40 CFR Part 60, Subpart A – General Provisions (as required in Table 3 of Subpart JJJJ).

(Ref.: 40 CFR 60.4230(a)(4)(iv); Subpart JJJJ)

3.B.39 For Emission Point AA-022i, the permittee shall comply with the emission standards (in grams per horsepower-hour) in the following table. The model year listed indicates the model year for which the specified standards take effect.

Rated Power (HP)	Model Year	NO_X +HC	CO
25 < HP < 130	2009	10	387

The permittee shall operate and maintain the engine in such a manner to achieve the referenced emission standards over the entire life of the engine.

(Ref.: 40 CFR 60.4233(d) and 60.4234; Subpart JJJJ)

3.B.40 Emission Points AA-022a through AA-022k, any operation of an engine for any reason other than emergency operation, maintenance and testing, and operation in non-emergency situations for fifty (50) hours per year is prohibited. If an engine is not operated in accordance with paragraphs (a) through (c) of this condition, the engine will not be considered an emergency engine under the referenced regulation and shall meet all requirements for a corresponding non-emergency engine.

(a) There is no time limit on the use of an engine in emergency situations.

(b) The permittee may operate an engine for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company accompanied with the engine. Maintenance checks and readiness testing of an engine is limited to a maximum of one hundred (100) hours per calendar year. The permittee may petition the MDEQ for approval of additional hours to be used for maintenance checks and readiness testing. However, a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of the engine beyond 100 hours per calendar year.

(c) The permittee may operate an engine for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid, or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4211(f)(1) – (3); Subpart IIII)

(Ref.: 40 CFR 60.4243(d)(1) – (3); Subpart JJJJ)

3.B.41 For Emission Point AA-029, the permittee may vent the exhaust gases from the auto-thermal reformer (ATR) directly to the atmosphere and bypass the hydrogen plant waste heat boiler burner (Emission Point AA-027) for no more than 2,000.0 hours per year based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit modified September 26, 2019)

3.B.42 For Emission Points AA-030a through AA-030d, the permittee is subject to and shall comply with the applicable requirements found in 40 CFR Part 60, Subpart TT – Standards of Performance for Metal Coil Surface Coating.

(Ref.: 40 CFR 60.460; Subpart TT)

3.B.43 For Emission Points AA-030a through AA-030d, the permittee shall limit the emission of VOCs from coil coating operations to no more than ten percent (10.0%) of the total VOCs applied during each calendar month [i.e. ninety percent (90.0%) emission reduction].

(Ref.: 40 CFR 60.462(a)(3); Subpart TT)

3.B.44 For Emission Points AA-030a through AA-030d, the permittee shall limit the emission of VOCs from coil coating operations to no more than one percent (1.0%) of the total VOCs mixed or applied during each calendar month [i.e. ninety-nine percent (99.0%) emission reduction].

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued January 22, 2016 – PSD Avoidance Limit)

3.B.45 For Emission Points AA-030a through AA-030d, the permittee shall limit the emission of VOCs from coil coating operations to no more than 39.0 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued January 22, 2016 – PSD Avoidance Limit)

3.B.46 For Emission Points AA-030a through AA-030d, the permittee shall operate the closed vent system and the thermal oxidizer at all times when a coating that contains VOCs is being applied. During these application periods, the permittee shall not allow the emissions to bypass the closed vent system and/or thermal oxidizer.

(Ref: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued January 22, 2016– PSD Avoidance Limit)

3.B.47 For Emission Points AA-030a, AA-030c, and AA-030d, the permittee shall maintain one hundred percent (100%) capture efficiency for the closed vent system.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued January 22, 2016 – PSD Avoidance Limit)

C. INSIGNIFICANT AND TRIVIAL ACTIVITY EMISSION LIMITATIONS & STANDARDS

Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.C.1	PM	0.6 lb. / MMBTU
11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.C.2	SO_2	4.8 lb. / MMBTU

3.C.1 The maximum permissible emission of ash and/or PM from any fossil fuel burning installation of less than ten (10) MMBTU per hour heat input shall not exceed 0.6 pounds per MMBTU 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 MMBTU heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

D. WORK PRACTICE STANDARDS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
AA-002 AB-002	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Standard)**	3.D.1	PM (Fugitive)	Use Roof Monitors
AA-003 AB-003	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Standards)**	3.D.2	SO_2	Use Low Sulfur Scrap
		3.D.3	VOCs	Maintain and Implement a Scrap Management Plan
AA-005a AA-005b AA-006 AA-007 AA-009 AA-010 AA-011 AA-015b AA-016 AA-017a AA-017d AB-005a AB-005b AB-006 AB-007 AB-009 AB-011 AB-016a AB-017a	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Standard)**	3.D.4	NO_X CO VOCs SO_2 PM_{10}	Utilize Good Combustion Practices and Maintain the Systems Per Manufacturer's Maintenance Guidelines
AA-014	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 **(PSD BACT Standard)**	3.D.5	PM_{10}	Utilize a Mist Eliminator
AA-015a AB-015a	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 **(PSD BACT Standard)**	3.D.6	PM_{10} HCl	Utilize a Wet Scrubber Followed by a Mist Eliminator

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
AA-015a AA-018 AA-019 AA-020 AA-021 AB-015a	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 **(PSD BACT Standard)**	3.D.7	PM_{10}	Maintain the Systems Per Manufacturer's Maintenance Guidelines
AC-017	11 Miss. Admin. Code Pt. 2, R. 2.15.C., as established in the Title V Operating Permit modified September 26, 2019	3.D.8	PM_{10}	Operate a Mist Eliminator
AA-018	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 **(PSD BACT Standard)**	3.D.9	PM / PM_{10} (Fugitive)	Limit the Drop Heights and Apply Water for Dust Control
AA-019	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 **(PSD BACT Standard)**	3.D.10	PM / PM_{10}	Utilize a Drift Eliminator
AA-021	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 **(PSD BACT Standard)**	3.D.11	PM / PM_{10} (Fugitive)	Use Wetting Agents
AA-022a through AA-022k	40 CFR 60.4211(a); Subpart IIII 40 CFR 60.4243(a)(1) and (b)(1); Subpart JJJJ	3.D.12	$NMHC + NO_X$ CO PM Opacity (Smoke)	Perform Best Management Practices
	40 CFR 60.4211(g); Subpart IIII 40 CFR 60.4243(a)(2) and (b)(1); Subpart JJJJ	3.D.13		Compliance Requirements (As Applicable)

3.D.1 For Emission Points AA-002 and AB-002, the permittee shall limit the emission of fugitive PM by the use of roof monitors.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permits to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Standard)

3.D.2 For Emission Points AA-003 and AB-003, the permittee shall limit the emission of SO_2 by using low sulfur scrap.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permits to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Standard)

3.D.3 For Emission Points AA-003 and AB-003, the permittee shall limit the emission of VOCs by maintaining and implementing a Scrap Management Plan found in Appendix C of the permit (dated October 21, 2014).

As deemed necessary, the permittee shall revise the Scrap Management Plan to address changes to applicable operations and/or to incorporate additional best management practices for minimizing VOC emissions.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permits to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Standard)

3.D.4 For Emission Points AA-005a, AA-005b, AA-006, AA-007, AA-009, AA-010, AA-011, AA-015b, AA-016, AA-017a, AA-017d, AB-005a, AB-005b, AB-006, AB-007, AB-009, AB-011, AB-016a, and AB-017a, the permittee shall limit the emission of PM_{10}, NO_X, CO and VOCs by utilizing good combustion practices and implementing a program to maintain the corresponding systems (e.g. flares; low-NO_X burners; etc.) in accordance with the manufacturer's maintenance guidelines.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permits to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Standards)

3.D.5 For Emission Point AA-014, the permittee shall limit the emission of PM_{10} by utilizing a mist eliminator.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 - PSD BACT Standard)

3.D.6 For Emission Points AA-015a and AB-015a, the permittee shall limit the emission of PM_{10} and HCl mist by utilizing a wet scrubber followed by a mist eliminator.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 and modified August 27, 2007 – PSD BACT Standard)

3.D.7 For Emission Points AA-015a, AA-018, AA-019, AA-020, AA-021, and AB-015a, the permittee shall limit the emission of PM_{10} by implementing a program to maintain the corresponding systems in accordance with the manufacturer's maintenance guidelines.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permits to Construct issued March 31, 2005 and modified August 27, 2007 - PSD BACT Standard)

3.D.8 For Emission Point AC-017, the permittee shall limit the emission of PM (filterable) and PM_{10} by operating a mist eliminator at all times the associated process equipment is in operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.15.C., as established in the Title V Operating Permit modified September 26, 2019)

3.D.9 For Emission Point AA-018, the permittee shall limit fugitive PM and PM_{10} emissions by limiting the drop heights and by utilizing the application of water for dust control.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 – PSD BACT Standard)

3.D.10 For Emission Point AA-019, the permittee shall limit the emission of PM and PM_{10} by utilizing a drift eliminator.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 – PSD BACT Standard)

3.D.11 For Emission Point AA-021, the permittee shall limit fugitive PM emissions by using wetting agents.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 31, 2005 – PSD BACT Standard)

3.D.12 For Emission Points AA-022a through AA-022k, the permittee shall comply with the following practices to maintain compliance with the applicable emission standards outlined in Conditions 3.B.35 and 3.B.38:

(a) Operate and maintain each engine and control device (if any) according to the manufacturer's emission-related written instructions;

(b) Change only those emission-related settings that are permitted by the manufacturer;

(c) Keep records on any maintenance conducted on an engine; and

(d) Meet the requirements of 40 CFR Part 1068 (as applicable).

(Ref.: 40 CFR 60.4211(a); Subpart IIII)
(Ref.: 40 CFR 60.4243(a)(1) and (b)(1); Subpart JJJJ)

3.D.13 For Emission Points AA-022a through AA-022k, if the permittee does not operate and maintain the engine in accordance with the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance with the emission standards specified in Conditions 3.B.35 and 3.B.38, through the following actions:

(a) Keep a maintenance plan;

(b) Maintain records of conducted maintenance; and

(c) Maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions (to the extent practicable).

(d) For a CI ICE ≤ 500 HP, conduct a performance test to demonstrate compliance with the applicable emission standards in accordance with one of the following deadlines (as applicable):

(1) Within one (1) year of start-up;

(2) Within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions; or

(3) Within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer.

For a CI ICE > 500 HP, subsequent testing must be performed every 8,760 hours of engine operation or three (3) years (whichever comes first).

(Ref.: 40 CFR 60.4211(g); Subpart IIII)

(Ref.: 40 CFR 60.4243(a)(2) and (b)(1); Subpart JJJJ)

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. If the permit was reissued or modified during the course of the preceding calendar year, the certification of compliance shall address each version of the permit. 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.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

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. Supporting 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 of each calendar year 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 Mississippi Administrative Code, Title 11, Part 2, Chapter 6, Rule 6.2.E.

For applicable periodic reporting requirements in 40 CFR Parts 60, 61, and 63, the permittee shall comply with the deadlines in this condition for reporting conducted on a semiannual basis. Additionally, any required quarterly reports shall be submitted by the end of the month following each calendar quarter (i.e. April 30, July 31, October 31, and January 31) and any required annual reports shall be submitted by January 31 following each calendar year.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).)
(Ref.: 40 CFR 60.19(c), 61.10(g), and 63.10(a)(5); Subpart A)

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. The report shall be made within five (5) working 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 MDEQ and the EPA.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3).)

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

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3).)

5.A.8 Unless otherwise specified in Section 4, upon permit issuance, the monitoring, testing, recordkeeping, and reporting requirements of Section 5 herein supersede the requirements of any preceding permit to construct and/or operate.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3).)

B. SPECIFIC MONITORING AND RECORDKEEPING REQUIREMENTS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Monitoring / Recordkeeping Requirement
AA-000 (Facility-Wide)	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.1	HAPs	Calculate the Emission of the Applicable Pollutants (Monthly and Rolling 12-Month Totals)
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.2	PM / PM_{10} NO_X CO SO_2 VOCs HAPs	General Performance Testing Requirements
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.3	Fuel Usage	Record the Amount of Natural Gas Combusted (Monthly and Rolling 12-Month Total)
		5.B.4	Steel Production	Record the Amount of Steel Produced (Monthly and Rolling 12-Month Total)
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.5	Opacity	Perform a Visible Emission Observation Weekly
AA-001	40 CFR 63.10685(a)(1) and (2); Subpart YYYYY	5.B.6	Chlorinated Plastics Lead Free Organic Liquids	Requirements for Metallic Scrap Used in the EAFs
	40 CFR 63.10685(b)(1) – (4), (c)(1)(i), and (2); Subpart YYYYY	5.B.7	Mercury	Requirements for Motor Vehicle Scrap
AA-002 AA-014 AA-015a AA-020 AA-030a through AA-030d AB-002 AB-015a AC-017	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.8	PM / PM_{10} CO VOCs HAPs	Perform an Inspection on Each Air Pollution Control Device Monthly

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Monitoring / Recordkeeping Requirement
AA-002 AB-002	40 CFR 60.273a(c); Subpart AAa 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.9	Opacity	Install and Operate a Bag Leak Detection System Perform a VEE Daily
AA-002 AB-002	40 CFR 60.273a(e)(1) – (8); Subpart AAa	5.B.10	Opacity	Requirements for a Bag Leak Detection System
	40 CFR 60.273a(f) and (g); Subpart AAa	5.B.11		Determine the Cause of All Bag Leak Detection System Alarms and Perform Corrective Actions
	40 CFR 60.276a(h); Subpart AAa	5.B.12		Bag Leak Detection System Recordkeeping Requirements
	40 CFR 60.274a(b), (d), and (f); Subpart AAa 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.13	Furnace Static Pressure Fan Motor Amperes Damper Position	Record the Furnace Static Pressure, Control System Fan Motor Amperes, and Damper Position Once-Per-Shift Basis Perform an Inspection on the Capture System Equipment Monthly
	40 CFR 64.3(a), (b), and 64.6(c); CAM	5.B.14	Pressure Drop	Monitor Continuously the Pressure Drop and Inspect the Baghouse Fan Motor Daily
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.15	VOCs Lead	Conduct Performance Testing Once Every Five (5) Years
	40 CFR 60.274a(h), 60.275a(a), and (e)(1); Subpart AAa 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.16	PM (filterable) PM_{10} (filterable only) Condensable PM	Conduct Performance Testing for PM (filterable) and PM_{10} (filterable only) Once Every Five (5) Years Conduct One-Time Performance Test for Condensable PM
AA-003 AA-004 AB-003 AB-004	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.17	NO_X CO SO_2	Operate CEMS and Calculate the Emission of the Applicable Pollutants
AA-005a AB-005a	40 CFR 64.3(a) and (b), 64.6(c); CAM	5.B.18	Flame	Continuously Monitor the Presence of Flame in the Flare and the Flow of Natural Gas to the Flare
AA-002 AA-005a AB-002 AB-005a	40 CFR 64.7(b) and (c); CAM	5.B.19	Operation & Maintenance	Operation and Maintenance Requirements for Monitoring System(s)
	40 CFR 64.7(d); CAM	5.B.20	Corrective Action	Corrective Action Response to an Excursion / Exceedance of a CAM Indicator

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Monitoring / Recordkeeping Requirement
	40 CFR 64.8; CAM	5.B.21	QIP	Upon Request by the MDEQ, Develop a Quality Improvement Plan (QIP)
	40 CFR 64.9(b); CAM	5.B.22	CAM Records	Maintain CAM Records as Specified
AA-005b AA-015b AA-017d AB-005b	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.23	NO_X CO	Conduct Performance Testing Once Every Five (5) Years
	40 CFR 60.48c(g)(2); Subpart Dc	5.B.24	SO_2	Record the Amount of Fuel Monthly
AA-015a AB-015a	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.25	HCl	Conduct Performance Testing Once Every Five (5) Years
AA-017a AA-017b	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.26	NO_X	Conduct Performance Testing Once Every Five (5) Years
AA-022a through AA-022k	40 CFR 60.4214(a)(2)(i) – (iv); Subpart IIII 40 CFR 60.4245(a)(1) – (4); Subpart JJJJ 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.27	$NMHC + NO_X$ CO PM Opacity (Smoke)	Recordkeeping Requirements
	40 CFR 60.4214(b); Subpart IIII 40 CFR 60.4245(b); Subpart JJJJ 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.28		Record Hours of Operation (Emergency and Non-Emergency)
AA-029	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.29	Bypass Hours	Monitor the Duration that the ATR Exhaust Bypasses the Hydrogen Plant Heat Boiler Burner (Emission Point AA-027) and Vents to the Atmosphere
AA-030a through AA-030d	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.30	VOCs HAPs	Recordkeeping Requirements for Malfunctions
		5.B.31		Recordkeeping Requirements
AA-030a AA-030c AA-030d	40 CFR 60.466(a)(1) and (b); Subpart TT 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.32	VOCs HAPs	Maintain Information on Coatings, Adhesives, Solvents, or Other VOC- / HAP-Containing Materials
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.33	Capture Efficiency	Conduct Performance Testing Once Every Five (5) Years

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Monitoring / Recordkeeping Requirement
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.34	Capture System	Monitor and Operate in Accordance with Capture System Monitoring Plan
AA-030b	40 CFR 60.464(c) and 60.465(e); Subpart TT 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.35	Combustion Temperature	Continuously Record the Combustion Temperature of the Effluent Gases in the Thermal Oxidizer
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.36	Combustion Temperature	Continuously Monitor the Combustion Temperature (Rolling 3-Hour Block Average)
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.37	VOC Reduction Efficiency	Conduct Performance Testing Once Every Five (5) Years

5.B.1 For Emission Point AA-000 (Facility-Wide), the permittee shall calculate and record the emission of each individual HAP and all combined HAPs (as applicable) in tons both on a monthly and rolling 12-month total basis.

Unless otherwise specified herein, the permittee shall include all reference data utilized to validate the calculated emissions (e.g. operational data, applicable emission factors, engineering judgement determinations, stack testing data, etc.).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.2 For Emission Point AA-000 (Facility-Wide), unless otherwise specified herein, the permittee shall conduct performance testing in accordance with the following requirements:

(a) Each test shall be conducted in accordance with an applicable EPA Test Method found in Appendix A of 40 CFR Part 60, Appendix M of 40 CFR Part 51, Appendix A of 40 CFR Part 63, or an alternative test method approved by the EPA prior to the testing event;

(b) The permittee shall conduct a minimum of three (3) separate test runs for a performance test for a duration of at least one (1) hour;

As applicable, the permittee shall conduct a performance stack test at representative operating conditions. Operations during periods of start-up, shutdown, or nonoperation do not constitute "*representative operating conditions"*. The permittee may not conduct performance tests during periods of malfunction. The permittee shall monitor and record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation;

(c) As applicable, the permittee shall conduct a performance stack test at representative load conditions. For the purpose of this permit, "*representative load conditions*" is defined as the operation of the unit under heat input rates that will be typical in the future;

(d) The MDEQ may require the permittee to conduct a subsequent performance stack test if the heat input rate of the unit increases by more than ten percent (10%) of the average rate established during the previously completed test; and

(e) As applicable, the permittee shall monitor and record the usage of each fuel combusted during each test run.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.B.3 For Emission Point AA-000 (Facility-Wide), as applicable, the permittee shall monitor and record the amount of natural gas used by all of the combustion equipment on a monthly and a rolling 12-month total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.4 For Emission Point AA-000 (Facility-Wide), the permittee shall monitor and record the production of steel in tons both on a monthly and rolling 12-month total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.5 For Emission Point AA-000 (Facility-Wide), the permittee shall demonstrate compliance with the applicable opacity limitations by performing a weekly visible emissions observation in accordance with EPA Test Method 22 on the exhaust from each stack during daylight hours and during representative operating conditions. Each observation shall be conducted for a minimum period of six (6) consecutive minutes.

If visible emissions are detected during an observation, the permittee shall perform and record a visible emission evaluation (VEE) in accordance with EPA Test Method 9. In the event that a VEE is required but cannot be conducted, the permittee shall record a written explanation as to why it was not possible to perform the VEE. The VEE shall be performed by a person that is certified as a visible emission reader by the MDEQ or an equivalent agency qualified for such services.

The permittee shall maintain all documentation and information specified by EPA Test Method 22 and/or EPA Test Method 9, any corrective actions taken to prevent or minimize emissions as a result of the evaluation, and the date / time when each observation / evaluation was conducted.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.6 For Emission Point AA-001, the permittee shall comply with the requirements for *chlorinated plastics, lead, and free organic liquids* from metallic scrap in the electric arc furnace (EAF). Some scrap may be subject to the requirements in paragraph (a) and other

scrap may be subject to the requirements in paragraph (b) provided that the scrap remains segregated until charge make-up.

(a) *Pollution Prevention Plan*: The permittee shall implement the Pollution Prevention Plan (PPP) found in Appendix C of the permit (dated October 21, 2014) for metallic scrap selection and inspection to minimize the amount of chlorinated plastics, lead and free organic liquids that is charged to the furnace. The permittee must provide training on the plan's requirements to all plant personnel with materials acquisition or inspection duties. The plan must include the following information:

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

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

(3) Procedures for determining if the requirements and specifications in paragraph (a) above are met (such as visual inspection or periodic audits of scrap providers) and procedures for taking corrective actions with vendors whose shipments are not within specifications; and

(4) The requirements of paragraph (a) above do not apply to the routine recycling of baghouse bags or other internal process or maintenance materials in the furnace. As such, the PPP must identify these exempted materials.

(b) *Restricted metallic scrap*: The permittee must not charge to a furnace metallic scrap that contains scrap from motor vehicle bodies, engine blocks, oil filters, oily turnings, machine shop borings, transformers or capacitors containing polychlorinated biphenyls, lead- containing components, chlorinated plastics, or free organic liquids.

This restriction does not apply to any post-consumer engine blocks, oil filters, or oily turnings that are processed or cleaned to the extent practicable such that the materials do not include lead components, chlorinated plastics, or free organic liquids. Also, this restriction does not apply to motor vehicle scrap that is charged to recover the chromium or nickel content if the permittee complies with the requirements in Condition 5.B.7(d).

(Ref.: 40 CFR 63.10685(a)(1) and (2); Subpart YYYYY)

5.B.7 For Emission Point AA-001, the permittee shall comply with the following requirements for *mercury* from motor vehicle scrap. Additionally, the permittee shall procure motor vehicle scrap pursuant to one (1) of the compliance options specified in paragraphs (a) through (d) for each scrap provider, contract, or shipment:

(a) *Site-specific plan for mercury switches*: The permittee shall implement and maintain a site-specific plan that details how the facility ensures that scrap providers remove the mercury switches from vehicle bodies. The plan shall include the following information:

(1) A means of communicating to scrap purchasers / providers the need to obtain / provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from that scrap as required by Subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR Parts 261 through 265 and 268).

The plan shall include documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles;

(2) Provisions for obtaining assurance from scrap providers that motor vehicle scrap provided to the facility meet the scrap specification;

(3) Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed (including the minimum frequency such means of corroboration are implemented); and

(4) Provisions for taking corrective actions (i.e. actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components – if needed) based on the results of procedures implemented in paragraph (a)(3) in this condition.

Additionally, the permittee shall maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered.

(b) *Option for approved mercury programs*: The permittee must maintain records that identify each motor vehicle scrap provider and documents the scrap provider's participation in an approved mercury switch removal program such as the "National Vehicle Mercury Switch Recovery Program" and the "Vehicle Switch Recovery Program".

(c) *Option for specialty metal scrap*: The permittee must only use materials from motor vehicle scrap that were recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and they are not reasonably expected to contain mercury switches, based on the nature of the scrap and purchase specifications.

(d) *Scrap that does not contain motor vehicle scrap*: The permittee shall maintain records that detail the scrap does not contain motor vehicle scrap.

(Ref.: 40 CFR 63.10685(b)(1) – (4), (c)(1)(i), and (2); Subpart YYYYY)

5.B.8 For Emission Points AA-002, AA-014, AA-015a, AA-020, AA-030a through AA-030d, AB-002, AB-015a, and AC-017, the permittee shall perform and record a monthly inspection (or more often if necessary) that evaluates the proper function of the air pollution control device associated with each process unit. If a problem is noted during an inspection of a control device, the permittee shall perform the necessary maintenance to ensure operation as originally designed. Additionally, the permittee shall maintain on-site sufficient components as is necessary to repair a control device.

The permittee shall maintain documentation that details the date / time each inspection is performed, any problem that is experienced, any maintenance (either corrective or preventative) performed to return a control device to operation as originally designed, and any periods of time (including date and duration) in which a control device failed / malfunctioned.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.9 For Emission Points AA-002 and AB-002, the permittee shall demonstrate continuous compliance with the opacity limitations specified in Condition 3.B.9(b) and (c) by installing and operating a bag leak detection system in accordance with Condition 5.B.10 and by performing a daily VEE in accordance with EPA Test Method 9 for (at a minimum) three (3) periods that each span six (6) consecutive minutes.

For the purpose of this permit, Emission Point AA-023 is exempt from the noted opacity monitoring requirements because the dust handling and transfer operations are completely enclosed.

In the event that a VEE is required but cannot be conducted, the permittee shall record a written explanation as to why it was not possible to perform the VEE. The VEE shall be performed by a person who is certified as a visible emission reader by the MDEQ or an equivalent agency qualified for such services.

The permittee shall maintain all documentation and information specified by EPA Test Method 9, any corrective actions taken to prevent or minimize emissions as a result of the evaluation, and the date / time when each observation / evaluation was conducted.

(Ref.: 40 CFR 60.273a(c); Subpart AAa)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.10 For Emission Points AA-002 and AB-002, the permittee shall meet the following requirements and specifications for the bag leak detection system:

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

(b) The bag leak detection system sensor must provide output of relative PM loadings and the permittee 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.)

(c) The bag leak detection system must be equipped with an alarm system that will sound when an increase in relative PM loading is detected over the alarm set point established [in accordance with paragraph (d)] and the alarm must be located such that it can be heard by the appropriate plant personnel.

(d) The permittee shall operate and maintain the bag leak detection system in accordance with a site-specific monitoring plan at all times. The plan shall describe the following information:

(1) Installation of the bag leak detection system;

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

(3) Operation of the bag leak detection system including quality assurance procedures;

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

(5) How the bag leak detection system output shall be recorded and stored.

(e) The initial adjustment of the system shall (at a minimum) consist of establishing the baseline output by adjusting the sensitivity (i.e. the range), adjusting the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

(f) Following initial adjustment, the permittee shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the MDEQ except as provided below:

(1) Once per quarter, the permittee may adjust the sensitivity of the bag leak detection system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific monitoring plan;

(2) If opacities greater than zero (0) percent are observed over four (4) consecutive 15-second observations during the daily opacity observations required by Condition 5.B.9 and the alarm on the bag leak detection system

does not sound, the permittee shall lower the alarm set point on the bag leak detection system to a point where the alarm would have sounded during the period when the opacity observations were made.

(g) For negative pressure, induced air baghouses and positive pressure baghouses that discharge to the atmosphere through a stack, the bag leak detection sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(h) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(Ref.: 40 CFR 60.273a(e)(1) – (8); Subpart AAa)

5.B.11 For Emission Points AA-002 and AB-002, the permittee shall initiate the following procedures to determine the cause of all alarms within one (1) hour of each instance for each bag leak detection system installed in accordance with Condition 5.B.10.

Except as provided by paragraph (g) of this condition, the cause of an alarm must be alleviated within three (3) hours of the time the alarm occurred by taking whatever corrective action(s) are necessary. Corrective actions may include (but are not limited to) the following activities:

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

(b) Sealing off defective bags or filter media;

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

(d) Sealing off a defective baghouse compartment;

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

(f) Shutting down the process producing the particulate emissions.

(g) The MDEQ may allow the permittee more than three (3) hours to alleviate specific condition(s) that cause an alarm if the following criteria is outlined:

(1) The permittee identifies the condition(s) in the site-specific monitoring plan;

(2) The permittee adequately explains why it is not feasible to alleviate the condition(s) within three (3) hours of the time the alarm occurred; and

(3) The permittee demonstrates that the requested additional time will ensure alleviation of the condition(s) as expeditiously as practicable.

(Ref.: 40 CFR 60.273a(f) and (g); Subpart AAa)

5.B.12 For Emission Points AA-002 and AB-002, the permittee shall maintain the following information for each bag leak detection system.

(a) Records on the bag leak detection system output;

(b) Records on any bag leak detection system adjustments – including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(c) For records related to alarms:

(1) An identification of the date and time for all bag leak detection system alarms;

(2) The time that procedures to determine the cause of an alarm were initiated;

(3) If procedures were initiated within one (1) hour of an alarm, the permittee shall maintain the following information:

(i) The cause of the alarm;

(ii) An explanation of the actions taken;

(iii) The date and time the cause of an alarm was alleviated; and

(iv) If the alarm was alleviated within three (3) hours of an alarm.

(Ref.: 40 CFR 60.276a(h); Subpart AAa)

5.B.13 For Emission Points AA-002 and AB-002, the permittee shall monitor and record the furnace static pressure (as 15-minute integrated averages), the control system fan motor amperes, and the damper position on a once-per-shift basis in accordance with the requirements of 40 CFR Part 60, Subpart AAa.

The pressure monitoring device shall have an accuracy of ±5 millimeters (mm) of water gauge from its normal operating range and shall be calibrated in accordance with the manufacturer's instructions.

Additionally, the permittee shall perform a monthly inspection on the capture system equipment (i.e. pressure sensors, dampers, and damp switches) and shall include an observation on the physical appearance of the noted equipment (e.g. the presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). The permittee shall record any deficiencies and perform the proper maintenance.

The permittee shall maintain documentation that details the date / time each inspection is performed, any problem that is experienced, any maintenance (either corrective or preventative) performed to return the capture system equipment to operation as originally

designed, and any periods of time (including date and duration) in which the capture system failed / malfunctioned.

(Ref.: 40 CFR 60.274a(b), (d), and (f); Subpart AAa)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.14 For Emission Points AA-002 and AB-002, the permittee shall continuously monitor the differential pressure drop across each baghouse and conduct a daily inspection of each baghouse fan motor in accordance with the CAM Plan found in Appendix B of the permit.

(Ref.: 40 CFR 64.3(a), (b), and 64.6(c); Compliance Assurance Monitoring)

5.B.15 For Emission Points AA-002 and AB-002, the permittee shall demonstrate compliance with the short-term lead and VOC emission limitations specified in Conditions 3.B.8, 3.B.13 and 3.B.21 by conducting a routine performance test once every five (5) years [and no later than sixty (60) months after the previously completed test]. Each test shall be performed in accordance with Condition 5.B.2.

For the purpose of compliance, the permittee shall compare the results from the applicable testing with the summed BACT limits for the corresponding EAF and LMF (i.e. Emission Points AA-003 and AA-004; AB-003 and AB-004).

Additionally, the permittee shall monitor and record the following information for all heating cycles conducted during a performance test:

(a) The weight and type of materials contained in each charge and tap event;

(b) The time period for each heat cycle – including the start and stop times and a log of process operations (including periods of no operation during testing and the pressure inside an EAF when the DEC system is used);

(c) The control device operational log (as applicable); and

(d) The continuous opacity monitoring data or the corresponding EPA Test Method 9 data (for performance testing related to lead).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.B.16 For Emission Points AA-002 and AB-002, the permittee shall demonstrate compliance with the PM (filterable) and PM_{10} (filterable only) emission limitations specified in Conditions 3.B.7 and 3.B.9(a) by conducting a routine performance test once every five (5) years [and no later than sixty (60) months after the previously completed test].

Additionally, the permittee shall evaluate the emission of condensable PM by conducting a one-time performance test during the next required PM (filterable) and/or PM_{10} (filterable only) performance test conducted after this permit issuance. Each test for PM_{10} (filterable only) and condensable PM shall be performed in accordance with Condition 5.B.2.

Each test for PM (filterable) shall be performed in accordance with the following requirements. For the purpose of compliance, the permittee may also perform testing for PM_{10} (filterable only) in accordance with the following requirements instead of the requirements outlined in Condition 5.B.2.

(a) The permittee shall not add gaseous diluent to the effluent gas after the fabric in any pressurized fabric collector unless the amount of dilution is separately determined and considered in the determination of emissions.

(b) When emissions from any EAF(s) are combined with emissions from equipment not subject to the provisions of Subpart AAa but controlled by a common capture system and control device, the permittee shall use either or both of the following procedures during a performance test (see also 40 CFR 60.276a(e)):

(1) Determine compliance using the combined emissions.

(2) Use a method that is acceptable to the MDEQ and that compensates for the emissions from the equipment not subject to the provisions of Subpart AAa.

(c) EPA Test Method 5 shall be used for a negative-pressure fabric filter and EPA Test Method 5D shall be used for a positive-pressure fabric filter to determine the PM concentration and volumetric flow rate of the effluent gas.

Additionally, the sampling time and volume for each test run shall be at least four (4) hours and 4.5 dry standard cubic meters (dscm). When a single EAF is sampled, the sampling time shall include an integral number of heating cycles.

(d) The permittee shall monitor and record the following information for all heating cycles conducted during a performance test:

(1) The list of charge and tap weights and materials;

(2) The heat times – including the start and stop times and a log of process operations (including periods of no operation during testing and the pressure inside an EAF when the DEC system is used);

(3) The control device operational log; and

(4) The continuous opacity monitoring data or the corresponding EPA Test Method 9 data.

(Ref.: 40 CFR 60.274a(h), 60.275a(a) – (b), and (e)(1); Subpart AAa)

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.B.17 For Emission Points AA-003, AA-004, AB-003, and AB-004, the permittee shall demonstrate continuous compliance with the short-term NO_X, CO, and SO_2 emission limitations specified in Conditions 3.B.10 through 3.B.12 and 3.B.18 through 3.B.20 by

operating a Continuous Emissions Monitoring System (CEMS) to monitor the emission of each pollutant in accordance with the manufacturer's design specifications and recommendations incorporated into the approved protocol as well as the following requirements:

(a) Emissions shall be recorded at all times the baghouse fans are operating (baghouse fans operate constantly except for "major" facility shutdown);

(b) Emissions shall be recorded at all times an EAF and the corresponding caster are both in operation;

(c) Hourly emissions (in pounds per hour) shall be calculated based on a rolling 168-hour average;

(d) Steel production shall be calculated at the end of every calendar day (i.e. the tons of liquid steel tapped from 12:00 a.m. through 11:59 p.m. divided by the total hours of actual production);

(e) The emission rate of a pollutant (in pounds per ton of steel produced) shall be calculated using the hourly emission rate and the hourly steel production rate;

(f) Each Sunday, the permittee shall calculate a block 7-day average of each hourly pollutant emission rate (in pounds per ton of steel produced) from the previous week; and

(g) For purpose of compliance, the permittee shall calculate a rolling 13-week average of the values determined by paragraph (f) of this condition.

(h) The permittee shall operate, maintain, and calibrate a CEMS in accordance with the applicable performance specifications outlined in Appendix B of 40 CFR Part 60 (i.e. "Appendix B"), the applicable quality assurance procedures required in Appendix F of 40 CFR Part 60 (i.e. "Appendix F"), and 40 CFR 60.13, Subpart A.

(i) In lieu of the requirements specified in Sections 5.1.1, 5.1.3, and 5.1.4 of Appendix F,, the permittee may conduct either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) on each CEMS at least once every three (3) years [not to exceed more than thirty-six (36) months after the previously completed audit]. However, the permittee shall conduct Cylinder Gas Audits (CGA) each calendar quarter during which a RAA or a RATA is not performed.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.B.18 For Emission Point AA-005a and AB-005a, the permittee shall continuously monitor both the presence of a flame at the flare and the flow of natural gas to the flare in accordance with the CAM Plan found in Appendix B of this permit.

(Ref.: 40 CFR 64.3(a), (b), and 64.6(c), Compliance Assurance Monitoring)

5.B.19 For Emission Points AA-002, AA-005a, AB-002, and AB-005a, the permittee shall comply with the following requirements for the monitoring required by the approved CAM Plan found in Appendix B of this permit:

(a) *Proper Maintenance*: The permittee shall maintain the monitoring, including (but not limited to) maintaining necessary parts for routine repairs of the monitoring equipment at all times.

(b) *Continued Operation*: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities [including calibration checks and required zero and span adjustments (as applicable)], the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used [including in data averaging and calculations or in fulfilling a minimum data availability requirement, (as applicable)].

The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(Ref.: 40 CFR 64.7(b) and (c); Compliance Assurance Monitoring)

5.B.20 For Emission Points AA-002, AA-005a, AB-002, and AB-005a, upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

The response shall include minimizing the period of any start-up, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused start-up or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard (as applicable).

Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include (but is not limited to) monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(Ref.: 40 CFR 64.7(d); Compliance Assurance Monitoring)

5.B.21 For Emission Points AA-002, AA-005a, AB-002, and AB-005a, based on the results of a determination made under Condition 5.B.20, the MDEQ may require the permittee to develop and implement a Quality Improvement Plan (QIP) containing the elements specified in 40 CFR 64.8(b).

The QIP shall be developed and implemented within one hundred eighty (180) days of written notification from MDEQ that a QIP is required. The MDEQ may require the permittee make reasonable changes to the QIP if the QIP fails to address the cause of the control device performance problem or fails to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

The implementation of a QIP shall not excuse the permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that applies.

(Ref.: 40 CFR 64.8; Compliance Assurance Monitoring)

5.B.22 For Emission Points AA-002, AA-005a, AB-002, and AB-005a, the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to Condition 5.B.21 and any activities undertaken to implement a QIP, data used to document the adequacy of monitoring, and monitoring maintenance or corrective actions (as applicable).

As applicable, records of monitoring data and monitoring performance data should include date and time, who performed the analysis, analytical techniques or methods used, results and operating conditions at the time of the sampling or measurement. These records may be maintained in hard copy form or electronically, provided they are available for expeditious inspection and review.

(Ref.: 40 CFR 64.9(b); Compliance Assurance Monitoring)

5.B.23 For Emission Points AA-005b, AA-015b, AA-017d, and AB-005b, the permittee shall demonstrate compliance with the applicable NO_X and CO emission limitations specified in Conditions 3.B.23 and 3.B.25 by conducting a routine performance test once every five (5) years [and no later than sixty (60) months after the previously completed test]. The permittee shall test for NO_X and CO simultaneously in accordance with Condition 5.B.2.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.B.24 For Emission Points AA-005b, AA-015b, AA-017d, and AB-005b, the permittee shall monitor and record the amount of each fuel combusted during each calendar month.

(Ref.: 40 CFR 60.48c(g)(2); Subpart Dc)

5.B.25 For Emission Points AA-015a and AB-015a, the permittee shall demonstrate compliance with the HCl emission limitation specified in Condition 3.B.29 by conducting a routine

performance test once every five (5) years [and no later than sixty (60) months after the previously completed test]. Each test shall be conducted in accordance with Condition 5.B.2.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.B.26 For Emission Points AA-017a and AA-017b, the permittee shall demonstrate compliance with the NO_X emission limitation specified in Condition 3.B.30 by conducting routine performance stack testing once every five (5) years [and no later than sixty (60) months after the previously completed test]. Each test shall be conducted in accordance with Condition 5.B.2.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.B.27 For Emission Points AA-022a through AA-022k, the permittee shall maintain documentation that details the following information:

(a) All notifications submitted to comply with Subparts IIII and JJJJ;

(b) Any maintenance conducted on an engine;

(c) Documentation from the manufacturer that indicates the engine is certified to meet the emission standards specified in Conditions 3.B.36 and 3.B.39; and

(d) If the engine is not certified or is certified but operating in a non-certified manner, documentation that indicates the engine meets the emission standards specified in Conditions 3.B.36 and 3.B.39.

(Ref.: 40 CFR 60.4214(a)(2)(i) – (iv); Subpart IIII)
(Ref.: 40 CFR 60.4245(a)(1) – (4); Subpart JJJJ)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.28 For Emission Points AA-022a through AA-022k, the permittee shall monitor and record (via a non-resettable hour meter) the hours of operation for the engine on a monthly basis for both emergency and non-emergency service. Additionally, the permittee shall detail (in writing) and maintain what classified each occurrence as either an emergency or a non-emergency.

(Ref.: 40 CFR 60.4214(b); Subpart IIII and 40 CFR 60.4245(b); Subpart JJJJ)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.29 For Emission Point AA-029, the permittee shall monitor and record the duration (in hours) in which the exhaust gases from the ATR bypass the hydrogen plant waste heat

boiler burner (Emission Point AA-027) and vent directly to the atmosphere on both a monthly and a rolling 12-month total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.30 For Emission Points AA-030a through AA-030d, the permittee shall maintain documentation that details the following information for each malfunction of an operation (i.e. process equipment), a pollution control device, and monitoring equipment:

(a) The date, time and duration of the malfunction;

(b) A list of the affected equipment for which the malfunction occurred and the cause of the malfunction (including an unknown cause);

(c) An estimate on the quantity of each regulated pollutant emitted over an applicable emission limit and a description of the method used to calculate the estimate;

(d) The corrective actions taken or preventative measures adopted to return the affected equipment to its normal or usual manner of operation; and

(e) The nature of repairs or adjustments to the continuous monitoring systems (CMS) that are inoperative [except for zero (low-level) and high-level checks].

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.31 For Emission Points AA-030a through AA-030d, the permittee shall maintain the following records:

(a) All required maintenance performed on the closed vent system, thermal oxidizer and associated monitoring equipment;

(b) All required measurements and calculations needed to demonstrate compliance with the applicable emission limitations (e.g. coating usage / property data, monitoring system data, raw performance testing measurements, and raw performance evaluation measurements);

(c) The results from all performance tests (including thermal oxidizer destruction efficiency determinations and closed vent system capture efficiency determinations) and CMS performance evaluations;

(d) All measurements that may be necessary to determine the conditions of performance tests and performance evaluations;

(e) All CMS calibration checks;

(f) All adjustments and maintenance performed on CMS; and

(g) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.32 For Emission Points AA-030a, AA-030c, and AA-030d, the permittee shall maintain sufficient documentation that details the following information for each coating, adhesive, solvent, or other material that contains a VOC or HAP used on a monthly basis:

(a) The product name or identification;

(b) The volume used;

(c) The VOC and/or HAP content by weight percent as well as a description of the method used to determine the VOC and HAP content;

(d) The density (in pounds per gallon);

(e) The solids content (as applicable); and

(f) The total emission of VOCs, in tons on both a monthly basis and a rolling 12-month total basis.

The permittee may utilize data supplied by either the manufacturer or an analysis of the VOC and/or HAP by an applicable test method (i.e. EPA Test Method 24, EPA Test Method 311, and/or an alternative EPA-approved test method). However, in the event of a dispute, EPA Test Method 24 shall be the primary reference method.

For EPA Test Method 24, the coating sample must be at least a one (1) liter sample taken at a point where the sample will be representative of the coating as applied to the surface of the metal coil. When the permittee uses EPA Test Method 24 to determine the VOC content of water-borne coating, the results of the Method 24 analysis shall be adjusted as described in Section 12.6 of Method 24. The permittee shall maintain all documentation that contains the information used in the recordkeeping required by this condition.

(Ref.: 40 CFR 60.466(a)(1) and (b); Subpart TT)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.33 For Emission Points AA-030a, AA-030c, and AA-030d, the permittee shall demonstrate compliance with the capture efficiency standard specified in Condition 3.B.47 by conducting a routine performance test once every five (5) years [and no later than sixty (60) months after the previously completed test] in accordance with Condition 5.B.2 and one of the following compliance options:

(a) The permittee may confirm that the system has a 100% capture efficiency by demonstrating that it meets the requirements outlined in Section 6 of EPA Test Method 204 (or an EPA-approved alternative method) and that all exhaust gases from the enclosure(s) are delivered to the thermal oxidizer.

(b) The permittee may use any capture efficiency protocol and test methods that satisfy the criteria of either the "Data Quality Objective" or the "Lower Confidence Limit" approach as described in Appendix A of 40 CFR Part 63, Subpart KK – National Emission Standards for the Printing and Publishing Industry. However, the permittee may exclude never-controlled work-stations from such capture efficiency determinations.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.B.34 For Emission Point AA-030a, AA-030c, and AA-030d, the permittee shall monitor and operate each capture system in accordance with the "Capture System Monitoring Plan" (dated November 27, 2018), which shall contain the following information:

(a) The operating parameter(s) to be monitored to ensure the capture efficiency measured during the performance test is maintained;

(b) The reasoning for why the identified parameter(s) is appropriate for demonstrating continuous compliance with the capture efficiency standard specified in Condition 3.B.47

(c) The specific monitoring procedures;

(d) The operating limits for the capture system operating parameter value, or range of values, that demonstrates compliance with the emission standard in Condition 3.B.44. The operating limits must represent the conditions indicative of proper operation and maintenance of the capture system; and

(e) A schematic showing the emission sources, closed vent system, thermal oxidizer, monitoring devices, and potential bypasses that could divert gases away from the closed vent system and/or thermal oxidizer.

As deemed necessary, the permittee shall revise the Capture System Monitoring Plan to address changes to applicable operations and/or to incorporate additional best management practices.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.35 For Emission Point AA-030b, the permittee shall operate a device that continuously records the combustion temperature of the effluent gases incinerated and maintain the data daily. The device shall have an accuracy of ±2.5°C or ±0.75 percent of the temperature being measured expressed in degrees Celsius (whichever is greater).

The permittee shall also record all periods (during actual coating operations) in excess of three (3) hours during which the average temperatures in any thermal incinerator used to control emissions from an affected facility remains more than 28°C (50°F) below the temperature at which compliance with Conditions 3.B.43 and 3.B.44 was demonstrated during the most recent measurement of incinerator efficiency required by Condition

5.B.37. The permittee shall identify each such occurrence and its duration in accordance with the requirements of 40 CFR 60.7(c), Subpart A.

The calibration of the chart recorder, data logger, or temperature indicator must be verified every three (3) months or other time period specified by the manufacturer or be replaced. The permittee shall replace the equipment either if the permittee chooses not to perform the calibration or if the equipment fails a calibration and cannot be re-calibrated properly.

(Ref.: 40 CFR 60.464(c) and 60.465(e); Subpart TT)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.36 For Emission Point AA-030b, the permittee shall demonstrate compliance with the operating limit established by Condition 5.B.37(f) by continuously monitoring and recording the combustion temperature based on a rolling 3-hour block average.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.37 For Emission Point AA-030b, the permittee shall demonstrate continuous compliance with the VOC reduction limits specified in Conditions 3.B.43 and 3.B.44 by conducting a routine performance test once every five (5) years [and no later than sixty (60) months after the previously completed test]. Each test shall be conducted in accordance with Condition 5.B.2 and the following requirements:

(a) The VOC mass flow rate at the inlet and outlet of the thermal oxidizer shall be tested simultaneously.

(b) Determine the VOC mass flow rates (M_{fi}, M_{fn}, and M_{fo}) using the following equation:

$$M_f = Q_{sd}\, C_C (12)(0.0416)(10^{-6})$$

Where:

M_f = The VOC mass flow rate, in kilograms per hour.

C_C = The concentration of VOCs as carbon in the vent gas stream as determined by EPA Test Method 25 or 25A, in parts per million by volume (ppm_v) on a dry basis. This value may be corrected to include only concentration of regulated VOCs as determined by speciation using EPA Test Method 18 and EPA Test Method TO-15A.

Q_{sd} = The volumetric flow rate of the gas stream, in dry standard cubic meters per hour.

0.0416 = The conversion factor for molar volume, in kilogram-moles per cubic meter at 293 Kelvin and 760 mm of mercury.

(c) Determine the fraction of total VOCs that enter the thermal oxidizer using the following equation:

$$F = \frac{M_{fi}}{M_{fi} + M_{fn}}$$

Where:

F = The portion of total VOCs emitted that enter the thermal oxidizer, as a fraction.

M_{fi} = The VOC mass flow rate of the gas stream entering the thermal oxidizer, in kilograms per hour.

M_{fn} = The VOC mass flow rate of the gas stream emitted directly to the atmosphere, in kilograms per hour.

The fraction of total VOCs that enter the thermal oxidizer, "F", shall be determined as the average of fractions determined from the three (3) test runs.

(d) Determine the destruction efficiency of the thermal oxidizer using the following equation:

$$E = \frac{M_{fi} - M_{fo}}{M_{fi}}$$

Where:

E = The VOC destruction efficiency of the thermal oxidizer; as a fraction.

M_{fi} = The VOC mass flow rate of the gas stream entering the thermal oxidizer, in kilograms per hour.

M_{fo} = The VOC mass flow rate of the gas stream leaving the thermal oxidizer, in kilograms per hour.

The VOC destruction efficiency, "E", shall be determined as the average of the efficiencies determined from the three (3) test runs.

(e) Determine overall reduction efficiency using the following equation:

$$R = EF$$

Where:

R = The overall VOC emission reduction achieved; as a fraction.

E = The VOC destruction efficiency of the thermal oxidizer; as a fraction.

F = The portion of total VOCs emitted that enter the thermal oxidizer; as a fraction.

The overall reduction efficiency, "R", shall be determined as the average of the efficiencies determined from the three (3) test runs.

(f) During each test run, the permittee shall monitor and record the combustion temperature (either in the firebox or immediately downstream of the firebox before any substantial heat exchange occurs) at least once every fifteen (15) minutes. The calculated average combustion temperature (based on the 3 test runs) will be considered the minimum operating limit for the thermal oxidizer.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

C. SPECIFIC REPORTING REQUIREMENTS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Reporting Requirement
AA-000 (Facility-Wide)	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.1	PM / PM_{10} NO_X CO SO_2 VOCs HAPs Condensable PM	Submit a Semi-Annual Monitoring Report
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.C.2		Stack Test Reporting Requirements
AA-001	40 CFR 63.10685(c)(1)(ii), (2), and (3); Subpart YYYYY	5.C.3	HAPs	Submit a Semi-Annual Monitoring Report
AA-002 AB-002	40 CFR 60.276a(b) and (c); Subpart AAa	5.C.4	PM	Semi-Annual Exceedance Reporting Requirements
	40 CFR 60.276a(f); Subpart AAa 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.C.5	PM PM_{10} (filterable only)	Stack Test Reporting Requirements
AA-002 AA-005a AB-002 AB-005b	40 CFR 64.9(a), CAM	5.C.6	CAM Reporting	Semi-Annual Reporting Requirements
	40 CFR 64.7(e), CAM	5.C.7	CAM Modification	Promptly Notify the MDEQ of Failure to Achieve Limit / Standard though No Excursion or Exceedance Was Indicated by Approved Monitoring
AA-003 AA-004 AB-003 AB-004	40 CFR 60.7(c) and (d); Subpart A	5.C.8	NO_X CO SO_2	Semi-Annual Excess Emissions Reporting Requirements for CEMS

5.C.1 For Emission Point AA-000 (Facility-Wide), the permittee shall submit a semi-annual monitoring report (SMR) in accordance with Condition 5.A.4 that contains the following information for the compliance reporting period:

(a) For each applicable emission source (or collection of sources), the emission of each individual HAP, and all combined HAPs (as applicable) in tons on both a monthly basis and a rolling 12-month total basis;

(b) For Emission Points AA-003, AA-004, AB-003 and AB-004 – the calculated emission of NO_X, CO, and SO_2 as required by Condition 5.B.17(g);

(c) For Emission Points AA-001, AA-003, AB-003, AA-030a, AA-030c, and AA-030d – Any revisions made to the "Scrap Management Plan - Pollution Prevention Plan" and/or the "Capture System Monitoring Plan" during the reporting period;

(d) The total volume of natural gas combusted on a monthly and a rolling 12-month total basis;

(e) The total production of steel in tons both on a monthly and rolling 12-month total basis;

(f) For Emission Points AA-022a through AA-022k – the hours of operation for the emergency engines (including a summary on how many hours are spent for emergency operation, what classified the operation as an emergency situation, how many hours are spent for non-emergency operation, and the circumstance(s) for non-emergency operation);

(g) For Emission Point AA-029 – the total hours in which the exhaust gases from the ATR were vented directly to the atmosphere on a rolling 12-month total basis;

(h) For Emission Points AA-030a, AA-030c, and AA-030d – the total emission of VOCs, in tons on both a monthly basis and a rolling 12-month total basis;

(i) For Emission Point AA-030b – all periods (during actual coating operations) when the rolling 3-hour block average combustion temperature was lower than the operating limit established by Condition 5.B.37. If no such period occurs, the permittee shall state this in the report; and

(j) For Emission Points AA-030a through AA-030d – all deviations from the monitoring requirements and/or operating limits along with an explanation as to the cause and a description of corrective actions taken.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.C.2 For Emission Point AA-000 (Facility-Wide), the permittee shall submit the following notifications, information, and/or reports for any required performance test in accordance with the specified deadline:

(a) A written test protocol shall be submitted at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the MDEQ. If deemed necessary by the MDEQ, a conference may be required prior to the intended testing date to discuss the proposed test methods and procedures outlined in the performance testing protocol.

(b) After the first successful submittal of a written test protocol, the permittee may request that the submittal of a testing protocol be waived for subsequent testing by certifying in writing at least thirty (30) days prior to the subsequent testing that all conditions for testing remain unchanged such that the original protocol can and will

be followed.

(c) A notification about the testing event shall be submitted ten (10) days prior to the scheduled date(s) so that an observer may be afforded the opportunity to witness the test(s).

(d) For Emission Points AA-030a, AA-030c, and AA-030d – the permittee shall submit a site-specific test plan at least thirty (30) days prior to the intended test date that details all test methods and procedures. The notification shall identify the operating parameter to be monitored to ensure 100% capture efficiency is maintained.

(e) The test results from a performance test shall be submitted to the MDEQ no later than sixty (60) days after completing the actual test. Additionally, the permittee shall submit a summary of the results of any required periodic and/or parametric monitoring recorded during a performance test.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.C.3 For Emission Point AA-001, the permittee shall submit a SMR in accordance with Condition 5.A.4 that contains the following information (as applicable):

(a) If the permittee complies with the mercury requirements for motor vehicle scrap, by implementing a site-specific plan for mercury (as outlined in Condition 5.B.7), the permittee shall submit the following information:

(1) The number of mercury switches removed or the weight of mercury recovered from the switches and properly managed;

(2) The estimated number of vehicles processed;

(3) An estimate of the percent of mercury switches recovered;

(4) A certification that the recovered mercury switches were recycled at RCRA-permitted facilities; and

(5) A certification that the permittee has conducted inspections or taken other means of corroboration, as required in Condition 5.B.7(a)(3).

(b) The report must clearly identify any deviation from the requirements outlined in Conditions 5.B.7 and 5.B.8 as well as the corrective action(s) taken. The permittee must also identify the compliance option in Condition 5.B.7 that applies to each scrap provider, contract, or shipment.

(Ref.: 40 CFR 63.10685(c)(1)(ii), (2), and (3); Subpart YYYYY)

5.C.4 For Emission Points AA-002 and AB-002, the permittee shall submit a semi-annual report in accordance with Condition 5.A.4 that details exceedances for all of the following periods:

(a) The average opacity is 3% or greater for any 6-minute period;

(b) The furnace static pressure is greater than the value established during the most recent performance test **and** the control system fan motor amperes exceed ±15% of the value established during the most recent performance test;

(c) The furnace static pressure is greater than the value established during the most recent performance test **and** the flow rates are less than the values established during the most recent performance test.

(Ref.: 40 CFR 60.276a(b) and (c); Subpart AAa)

5.C.5 For Emission Points AA-002 and AB-002, the permittee shall include the following information with the results from each performance test that demonstrates compliance with the PM and PM_{10} emission limitations specified in Conditions 3.B.7 and 3.B.9(a) in accordance with Condition 5.C.2(e) (as applicable):

(a) The make and model of process, control device, and continuous monitoring equipment;

(b) A flow diagram of process and emission capture equipment (including other equipment or process(es) ducted to the same control device);

(c) The rated (design) capacity of process equipment;

(d) The data required by Condition 5.B.16(c);

(e) The test dates and test times;

(f) The test company and test company representative;

(g) Any test observers from an outside agency;

(h) A description of the test methodology used (including any deviation from standards reference methods);

(i) A schematic of sampling location;

(j) The number of sampling points;

(k) A description of the sampling equipment;

(l) A listing of sampling equipment calibrations and procedures;

(m) All field and laboratory data sheets;

(n) A description of sample recovery procedures;

(o) The results from each sampling equipment leak check results;

(p) A description of quality assurance and analytical procedures;

(q) A notation of sample blank corrections; and

(r) Sample emission calculations.

(Ref.: 40 CFR 60.276a(f); Subpart AAa)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

5.C.6 For Emission Points AA-002, AA-005a, AB-002, and AB-005a, the permittee shall submit reports in accordance with Condition 5.A.4 of the following information, as applicable:

(a) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(b) Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(c) A description of the actions taken to implement a QIP during the reporting period as specified in Condition 5.B.21. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances.

(Ref.: 40 CFR 64.9(a); Compliance Assurance Monitoring)

5.C.7 For Emission Points AA-002, AA-005a, AB-002, and AB-005a, if the permittee identifies a failure to achieve compliance with the emission limitation or standard for which the approved CAM monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or monitoring additional parameters.

(Ref.: 40 CFR 64.7(e), Compliance Assurance Monitoring)

5.C.8 For Emission Points AA-003, AA-004, AB-003, and AB-004, the permittee shall submit a semi-annual excess emissions report and/or a summary report in accordance with Condition 5.A.4 that contains the following information (as applicable):

(a) If the total duration of excess emissions is less than one percent (1%) of the total operating time **and** CEMS downtime is less than five percent (5%) of the total

operating time, the permittee shall only submit the summary report containing the information outlined in Figure 1 of 40 CFR 60.7(d), Subpart A.

(b) If the total duration of excess emissions is 1% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, the permittee shall submit both the summary report and the excess emission report. The excess emissions report shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) – Subpart A, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions;

(2) The process operating time during the reporting period;

(3) The specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected units;

(4) The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted;

(5) The date and time identifying each period during which the CEMS was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

(6) When no excess emissions have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(Ref.: 40 CFR 60.7(c) and (d); Subpart A)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 None permitted.

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://www.ecfr.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 containing class I, class II or non-exempt substitute refrigerants;

(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 equipment, approved recycling and recovery equipment testing organizations, as

well as persons selling, offering for sale, and/or purchasing class I, class II, or non-exempt substitute 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

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
lb/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_x	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 μm in diameter
$PM_{2.5}$	Particulate Matter less than 2.5 μm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOHAP	Volatile Organic Hazardous Air Pollutant
VOC	Volatile Organic Compound

APPENDIX B

COMPLIANCE ASSURANCE MONITORING (CAM) PLANS

Electric Arc Furnaces with Direct Evacuation Control (DEC) Systems [Equipped with Canopy Hoods and Baghouses (Emission Points AA-002 and AB-002)]

1.0 INTRODUCTION

Pursuant to the requirements concerning enhanced monitoring and compliance certification under the Clean Air Act Amendments of 1990, the EPA has promulgated regulations codified at 40 CFR Part 64 to implement compliance assurance monitoring (CAM) for major stationary sources. The CAM provisions of 40 CFR Part 64 are applicable to major stationary sources that meet the following three criteria:

- The facility is a Title V facility (i.e., major source);
- A pollutant specific emission unit (PSEU) (i.e., a single emissions source) has potential pre-control emissions that are greater than the major source amount for a specific pollutant.
- The PSEU is subject to an emission limitation or standard for the specific pollutant.
- The PSEU uses a control device to achieve compliance for that specific pollutant.

Steel Dynamics Columbus, LLC has two electric arc furnaces (EAFs) that have pre-control emissions greater than 100 tons/year and are subject to emission limits (Standards of Performance for New Stationary Sources Subpart AAa, and National Emission Standards for Hazardous Air Pollutants for Source Categories Subpart YYYYY). Each EAF will use a baghouse to control emissions of PM/PM10. The baghouse will also be used to control particulate emissions from the ladle metallurgical furnace (LMF) and the caster. Therefore, a CAM plan is required for PM/PM10 for the baghouse operations.

This CAM plan is being prepared in accordance with US EPA guidance to meet the requirements of 40 CFR Part 64. The following is the information on the affected source:

A. <u>Emissions Unit Description:</u>
Description: Electric Arc Furnaces (EAFs) (AA-003 and AB-003)

B. <u>Applicable Regulation, Emission Limits, and Monitoring Requirements:</u>
Regulation: 40 CFR Part 60 Subpart AAa [40 CFR 60.272a(1) – (2)]
40 CFR Part 63 Subpart YYYYY [40 CFR 63.10686(b)(1)-(2)]
Title V Permit No. 1680-00064 Conditions 3.B.7 and 3.B.9

Emission Limits:
Opacity: 3 percent
Particulate matter: 0.0018 gr/dscf

Monitoring requirements: Opacity

C. <u>Control Technology:</u>
Baghouse operated under positive pressure with monovent.

2.0 MONITORING APPROACH

The key elements of the monitoring approach are presented in Table 1.

TABLE 1. MONITORING APPROACH

	Indicator No. 1	Indicator No. 2	Indicator No. 3
I. Indicator	Visible Emissions	Baghouse Pressure Differential	Fan Motor Hertz
II. Measurement Approach	Perform Method 9 on a daily basis while the furnace is operating in the melting and refining period.	Baghouse pressure is measured continuously using a differential pressure gauge.	Fan Motor Hertz is measured continuously.
III. Indicator Range	The indicator range is opacity less than 3 percent (6-minute average). Excursions trigger an inspection, corrective action, and a reporting requirement.	The indicator range of the pressure is less than 12 in. H_2O. Operation above this range will trigger inspection and corrective action measures.	The indicator range for the baghouses is 43 – 55 Hertz. Operation outside these ranges will trigger inspection and corrective action measures. Fan operation also indicates control device is not being bypassed.
IV. Performance Criteria			
A. Data Representativeness	Opacity observations are performed at the baghouse exhaust during the melting and refining operations.	Pressure is measured at the baghouse inlet. The anticipated accuracy of the device is ± 0.5 in. H_2O.	Fan hertz is measured at the fan by current transformer. The anticipated accuracy of the device is ± 0.5%.
B. Verification of Operational Status	Observer will check with operations prior to monitoring.	Not Applicable	Not Applicable
C. QA/QC Practices and Criteria	The Method 9 observer is certified semi-annually.	Pressure gauge calibrated annually.	Fans checked during daily inspection.
D. Monitoring Frequency	Daily observations when EAF is operational.	Pressure drop is measured continuously.	Fan hertz are monitored continuously.
E. Data Collection Procedures	Method 9 observations are conducted by a certified observer and recorded on appropriate form.	A PLC records the pressure drop continuously. Data is logged in the WonderWare system.	The baghouse PLC records the fan hertz. Data is logged in the WonderWare system.
F. Averaging period	6 minutes	Not Applicable	Not Applicable

3.0 MONITORING APPROACH JUSTIFICATION

I. Background

The monitoring approach outlined in Table 1 applies to the positive-pressure baghouses that are used to control particulate emissions from the electric arc furnaces (and also the ladle metallurgical furnaces and caster).

II. Rationale for Selection of Performance Indicators

Visible emission monitoring (opacity observations) is selected as a performance indicator because it is indicative of particulate emission rates and good operation and maintenance of the baghouse. When the baghouse is operating optimally, there will be very little visible emissions from the baghouse exhaust. In general, an increase in visible emissions indicates lower baghouse performance. The EAF baghouses have a very low opacity standard of 3 percent based on a 6-minute average. A Method 9 opacity observation is conducted on a daily basis when the EAF is operational.

The pressure across the baghouse is monitored continuously. An increase in pressure can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, or the bags are becoming blinded.

Good operation of the fans is essential for maintaining optimal particulate capture and control efficiencies for a baghouse. Fan hertz is an indicator of proper fan operation and adequate air flow through a baghouse. Inadequate air flow rates can result in increased fugitive emissions from the production buildings. Excess gas velocity can cause seepage of dust particles through the dust cake and fabric.

III. Rationale for Selection of Indicator Ranges

The indicator range for opacity is a 6-minute average opacity of less than 3 percent for Method 9. This indicator range was selected based on the requirements listed in 40 CFR 60 Subpart AAa.

The indicator range for baghouse pressure differential was identified based on information from the baghouse vendor and verified during commissioning and compliance testing. The baghouse pressure is continuously recorded and when the pressure falls outside the selected range, the operators will initiate corrective action.

The indicator range for the fan hertz was identified based on information from the baghouse vendor and verified during commissioning and compliance testing. The fan hertz is continuously recorded and when the hertz falls outside the selected range, the operators will initiate corrective action.

Oxygen Blown Vacuum Degassers with Flares (Emission Points AA-005a and AB-005a)

1.0 INTRODUCTION

Pursuant to the requirements concerning enhanced monitoring and compliance certification under the Clean Air Act Amendments of 1990, the EPA has promulgated regulations codified at 40 CFR Part 64 to implement compliance assurance monitoring (CAM) for major stationary sources. The CAM provisions of 40 CFR Part 64 are applicable to major stationary sources that meet the following three criteria:

- The facility is a Title V facility (i.e., major source);
- A pollutant specific emission unit (PSEU) (i.e., a single emissions source) has potential pre-control emissions that are greater than the major source amount for a specific pollutant.
- The PSEU is subject to an emission limitation or standard for the specific pollutant.
- The PSEU uses a control device to achieve compliance for that specific pollutant.

Each of the two Vacuum Degassers located at the facility have pre-control emissions of CO greater than 100 tons/year and are subject to an emission limit in the Title V permit. The Vacuum Degassers will use a flare to control emissions of CO. Therefore a CAM plan is required for CO emissions for the flare operation.

This CAM plan is being prepared in accordance with US EPA guidance to meet the requirements of 40 CFR Part 64. The following is the information on the affected source:

A. Emissions Unit Description:
Oxygen Blown Vacuum Degassers (AA-005a and AB-005a)

B. Applicable Regulation, Emission Limits, and Monitoring Requirements:
Regulation: Title V Permit No. 1680-00064 Condition 3.B.22

Emission Limits:
CO: 7.32 lb/heat and 10.95 ton/yr for each flare

C. Control Technology:
Flare

2.0 MONITORING APPROACH

The key elements of the monitoring approach are presented in Table 1.

TABLE 1: MONITORING APPROACH

	Indicator No. 1	**Indicator No. 2**
I. Indicator	Presence of Flame	Flow of Natural Gas
II. Measurement Approach	Thermal Device	Orifice Plate or Equivalent
III. Indicator Range	An excursion is defined as no flame present or no flame sensed. Excursions will trigger operators to investigate the flare performance and make any repairs or adjustments necessary.	An excursion is defined as no flow of natural gas to the flare. Excursions will cause the system to stop the evacuation of the vacuum degasser and therefore the flow of untreated gas to the flare.
IV. Performance Criteria		
A. Data Representativeness	The thermal device monitors the presence of a flame, so either a flame or no flame is indicated.	The flow device detects the flow of natural gas.
B. Verification of Operational Status	NA	NA
C. QA / QC Practices and Criteria	The thermal device is fail-safe. If the thermal device is not functioning, the control system assumes the flame is out. The thermal device is repaired or replaced if not working.	The flow device is fail-safe. If the device is not functioning, the control system assumes no gas flow. The flow device is repaired or replaced if not working.
D. Monitoring Frequency	Continuous	Continuous
E. Data Collection Procedures	Presence/absence of flare flame or pilot light is continuously recorded.	Presence/absence of natural gas flow is continuously recorded.
F. Averaging Period	NA	NA

3.0 MONITORING APPROACH JUSTIFICATION

I. Background

The monitoring approach outlined in Table 1 applies to the flares that are used to control CO emissions from the vacuum degassing operations.

II. Rationale for Selection of Performance Indicators and Ranges

The destruction of CO is dependent upon combustion. The flare is provided with burner control panels that provide constant assurance of a lit flame and minimal natural gas flow to flare. The flare is equipped with a thermal device to ensure that a flame is present. If the thermal device indicates there is no flame detected, the pilot flame may be re-lit by the spark. If the flame is not re-lit within two to three cycles of the spark (40 – 60 seconds), the operator is notified. The flare control system controls the operation by looking at gas flow before allowing the operation to begin. Without natural gas flow, it is assumed the flare is not working and the pump down would not be initiated due to the possibility of exhausting CO gas into the atmosphere.

The CAM rule specifies that presumptively acceptable monitoring includes monitoring required for any standards that are exempt from CAM (i.e. MACT standards), provided the monitoring is applicable to the control device [40 CFR Part 64 – § 64.4(b)(4)]. Monitoring a flare for the presence of a flame (and natural gas flow) is consistent with the provisions in 40 CFR Part 63 Subpart FFFF, miscellaneous organic

APPENDIX C

METAL SCRAP MANAGEMENT PLAN – POLLUTION PREVENTION PLAN

PURPOSE:

Contaminants such as chlorinated plastics, free organic liquids, lead (except for leadedsteel) and mercury are not appropriate or desired for the production of steel in EAF facilities. However, these contaminants are found in the scrap metal that is the basic feedstock for the production of new steel.

The EPA has identified EAF facilities as potential sources of HAP emissions and on December 28, 2007, promulgated final regulations (codified at 40 CFR Part YYYYY) intended to control or minimize such emissions.

The regulations require EAF facilities, among other things, to restrict the use of certain scrap or follow a pollution prevention plan (PPP) for scrap purchased as production feedstock to minimize the amount of specified contaminants in such scrap.

Steel Dynamics is committed to complying with the requirements of the EAF Area Source Rule and to the goal of removing at least 80% of mercury convenience-light switches from motor vehicle scrap. Steel Dynamics is also committed to minimizing to the extent practicable the presence of other contaminants in scrap that may result in the emission of hazardous air pollutants (HAPs).

Accordingly, Steel Dynamics has adopted and will comply with the provisions of this PPP designed to control the presence of such contaminants in scrap that is consumed in the EAF by adopting:

1. A specification for scrap that addresses contaminants identified by EPA

2. Procedures for verifying compliance with the specification

3. Procedures for taking corrective action against vendors who do not comply with the specification

4. Program policies, implementation elements, and training and outreach materials sufficient to demonstrate how Steel Dynamics will appropriately implement its responsibilities under the EPA-approved National Vehicle Mercury Switch Recovery Program (NVMSRP) or other EPA-approved program.

This PPP must be approved by USEPA or a delegated authority. Any deficiencies identified by the permitting authority must be addressed within 60 days of disapproval of the PPP. A copy of the plan and supportive documentation must remain onsite for a period of three years.

The terms used in this Pollution Prevention Plan and in the outreach materials attached and incorporating to the PPP shall have the same definitions as those enumerated in EPA's Final Area Source Rule found at 40 CFR Part 63 Subpart YYYYY. As outlined in the final rule, the term "mercury switch" denotes only mercury switches that are part of a convenience light switch mechanism installed in a vehicle.

I. General Scrap Specifications:

The following restrictions apply to all scrap steel purchased or used by Steel Dynamics in its EAF steelmaking process:

A. Scrap materials must be depleted to the extent practicable of undrained used oil filters, chlorinated plastics, and free organic liquids at the time of charging to the furnace.

B. Lead-containing components of scrap, such as batteries, battery cables, and wheel weights, must be removed, to the extent practicable, prior to charging in the furnace unless the scrap is used to produce leaded steel.

C. Scrap must be purchased from providers that have minimized the presence of mercury in scrap through participation in the NVMSRP or another EPA-approved program.

II. Verification of Compliance with Specifications

A. Free Organic Liquids, Chlorinated Plastics, Lead and Lead-Containing Components:

1. Visual Inspection: Steel Dynamics conducts a visual inspection of incoming scrap loads to ensure that the scrap meets existing quality and/or purchase order specifications for grade, type, density, and content. Scrap is also inspected to determine whether there is an obvious presence of free organic liquids, chlorinated plastics, or lead-containing components. Every truck or railcar which enters the facility will be inspected at the scales, pass through radiation detection, and be inspected by trained inspectors when dumped or unloaded.

2. Site Inspection: Steel Dynamics periodically visits scrap suppliers to check for conformance to Steel Dynamics Scrap Specifications.

3. Depletion of Lead and Chlorinated Plastics from Shredded Scrap: Scrap that has been processed through a shredder that utilizes magnetic or density separation techniques to separate ferrous and non ferrous materials will be presumed to be depleted scrap of chlorinated plastics and lead to the extent practicable.

4. Unrestricted Scrap: Certain types of scrap, including “factory bundles,” “demolition debris,” “home scrap,” “return scrap”, “rail,” and “flashings,” as defined by common industry practice, as well as similar uncontaminated scrap, are not expected to contain free organic liquids, chlorinated plastics, or lead and will be presumed to be free of these contaminants. This scrap is not subject to the inspection and verification requirements of this plan.

B. Mercury

1. Steel Dynamics only purchases motor vehicle scrap from suppliers that participate in the National Vehicle Mercury Switch Recovery Program (NVMSRP).

2. Supplier Confirmation: Steel Dynamics Scrap Procurement annually sends out letters to motor vehicle scrap suppliers to verify their participation in the National Vehicle Mercury Switch Recovery Program (NVMSRP). Each supplier must sign the letter and send back to Steel Dynamics to confirm participation in the program for the previous and current calendar years.

3. Site Inspection: Steel Dynamics periodically visits motor vehicle scrap suppliers to check for conformance to Steel Dynamics Scrap Specifications and to confirm participation in the NVMSRP.

III. Corrective Action

A. Lead, Chlorinated Plastics, Free Organic Liquids

1. If, during inspection of scrap pursuant to Part II(A) above, Steel Dynamics determines that the scrap provider has not met the specifications in part I, the scrap provider will be subject to corrective action.

2. Any loads failing to meet standards will be rejected and a nonconforming scrap report will be generated.

    a. After a failure to meet the scrap specifications in Part I, the scrap provider must sign a statement acknowledging the requirements of the scrap specifications and provide either certification or another comparable form of reasonable assurance that the scrap specifications will be met in the future.

    b. If the vendor continues to fail to meet the scrap specifications, Steel Dynamics will consult with the scrap provider on the cause or reasons why the scrap loads are nonconforming and will inform the scrap provider that it may be suspended if the problem is not resolved.

B. Mercury

1. If, Steel Dynamics reasonably believes, either as a result of inspection, site visits to a scrap yard, review of supplier verification letters, review of the End of Life Vehicle Solutions (ELVS) database or by other means, that a scrap supplier is not taking appropriate steps to minimize the presence of mercury switches in scrap from end-of-life vehicles, Steel Dynamics will suspend purchase of motor vehicle scrap from the supplier.

2. The suspended motor vehicle scrap provider will not be allowed to supply motor vehicle scrap until it can demonstrate proof that they are participating in the NVMSRP and complying with mercury requirements.

IV. Program Policies, Implementation Elements, and Training and Outreach Materials

Steel Dynamics provides directive to staff and suppliers throughout the scrap supply chain of the need to remove mercury switches from end of life vehicles and participate in the NVMSRP. The following documents are part of our implementation elements and outreach materials.

A. Steel Dynamics Iron & Steel Scrap Specifications Manual

B. Steel Dynamics Supplier NVMSRP Confirmation Letter