

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

**TO OPERATE AIR EMISSIONS EQUIPMENT**

**THIS CERTIFIES THAT**

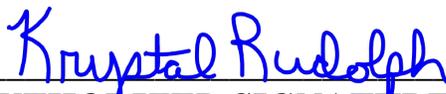
Mueller Casting Company, Inc. (A.I. 1503)  
Mueller Copper Tube Company, LLC (A.I. 1915)  
400 Mueller Road  
Fulton, Itawamba County, Mississippi

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: May 4, 2022**

**Effective Date: As specified herein.**

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**



**AUTHORIZED SIGNATURE**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Expires: April 30, 2027**

**Permit No.: 1240-00012**

**Modified: September 12, 2022 (Name Change – A.I. 1915)**

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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 1 of each year. By July 1 of each year, the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the 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, startups, 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 [Mueller Casting Company, Inc. and Mueller Copper Tube Company, Inc.]
<b>AA-100</b>	<b>Copper Casting Operations [Mueller Casting Company, Inc.]</b>
AA-001	47.38 MMBTU / Hour Natural Gas-Fired Southwire Shaft Furnace [for copper and cathode smelting; emissions routed to a 20 MMBTU / hour natural gas-fired recuperative thermal oxidizer (formerly Emission Point AA-002b) for control of carbon monoxide (CO)]
AA-010*	36.0 MMBTU / Hour Natural Gas-Fired Maerz Melt Furnace [for copper and cathode smelting; emissions routed to a 6.6 MMBTU / hour natural gas-fired thermal oxidizer (formerly Emission Point AA-011) for control of CO followed by two (2) baghouses in parallel (formerly Emission Points AA-012 and AA-013) for control of particulate matter (PM)]
AA-014*	7.2 MMBTU / Hour Natural Gas-Fired North Refining Furnace [emissions routed to a baghouse (formerly Emission Point AA-015) for control of PM]
AA-016*	7.2 MMBTU / Hour Natural Gas-Fired South Refining Furnace [emissions routed to a baghouse (formerly Emission Point AA-017) for control of PM]
AA-040	1,250 kW (1,676 HP) Diesel-Fired Emergency Generator [manufactured in 1998; total heat input: 12.01 MMBTU / hour]
AA-051	Three (3) Non-Contact Cooling Towers [equipped with mist eliminators]
AA-054	0.23 MMBTU / Hour Propane-Fired SMS MEER Atmosphere Generator [used to produce a CO-rich shielding gas atmosphere used at various processing points to prevent oxidation of copper during heating, refining, and annealing; emissions are vented through the roof monitor]
AA-055	25.2 MMBTU / Hour Natural Gas-Fired or Electric Induction Holding Furnace [vents through the roof monitor]
<b>AB-100</b>	<b>Copper Tube Operations [Mueller Copper Tube Company, Inc.]</b>
AB-004	10.0 MMBTU / Hour Natural Gas-Fired Billet Furnace No. 1 [used to heat copper billets in preparation for extrusion]
AB-005	10.0 MMBTU / Hour Natural Gas-Fired Billet Furnace No. 2 [used to heat copper billets in preparation for extrusion]
AB-009	Solvent Cleaning Operations [includes all non-halogenated solvent cleaners, storage vessels, distribution points located throughout the facility, and degreasing operations in the maintenance shop]
AB-010	Cascade Draw Lines No. 1 and 2 [consists of eight (8) copper tube drawing machines – four (4) per line]
AB-011	Printing Operations [consists of all copper tube printing units located throughout the facility]
AB-013	13.65 MMBTU / Hour Natural Gas-Fired Billet Furnace No. 3 [used to heat copper billets in preparation for extrusion]
AB-017	10.6 MMBTU / Hour Natural Gas-Fired Billet Furnace No. 4 [used to heat copper billets in preparation for extrusion]

\* While these emission points are included in the permit and have applicable limits, they have not operated since 2009. Prior to operating any of these units, the permittee is required to notify the MDEQ of their intent to do so per Condition 5.C.5.

## **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 percent (40%) 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**

<b>Emission Point(s)</b>	<b>Applicable Requirement</b>	<b>Condition Number</b>	<b>Pollutant / Parameter</b>	<b>Limit / Standard</b>
AA-000	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued July 12, 2001 <b>[PSD-Avoidance Limit]</b>	3.B.1	Hours of Operation	8,568 Hours / Year (Rolling 12-Month Total)
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the TVOP issued December 22, 2004 <b>[MACT Avoidance Limits]</b>	3.B.2	HAPs	24.0 tpy (Combined) 9.0 tpy (Individual) (Rolling 12-Month Totals)
AA-001 AA-010* AA-014* AA-016* AA-054	11 Miss. Admin. Code Pt. 2, R. 1.4.B(1).	3.B.3	SO <sub>2</sub>	500 ppmv
AA-040 AA-055 AB-004 AB-005 AB-013 AB-017	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.4	PM (filterable)	$E = 0.8808 \cdot (P^{0.1667})$
AA-055 AB-004 AB-005 AB-013 AB-017	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.5	SO <sub>2</sub>	4.8 lb. / MMBTU
<b>Copper Casting Operations</b>				
AA-100	11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).	3.B.6	PM (filterable)	$E = 4.1 \cdot (P^{0.67})$
AA-001	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 <b>[PSD BACT Limits]</b>	3.B.7	PM / PM <sub>10</sub> (filterable + condensable)	12.66 lb. / hour
		3.B.8	CO	12.91 lb. / hour
		3.B.9	Operating Restriction (CO)	Furnace Shall not Operate Unless the Control Device is Operating
		3.B.10	Operating Parameters for RTO (CO)	Maintain Minimum Retention Time of 0.3 seconds and an Hourly Average Temperature >1,400°F

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
AA-010*	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 <b>[PSD BACT Limits]</b>	3.B.11	PM / PM <sub>10</sub> (filterable + condensable)	7.65 lb. / hour
		3.B.12	CO	29.58 lb. / hour
		3.B.13	Operating Restriction (CO / PM)	Furnace Shall not Operate Unless All Control Devices are Operating
		3.B.14	Operating Parameters for TO (CO)	Maintain Minimum Retention Time of 0.3 Seconds and an Hourly Average Temperature >1,400°F
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 September 28, 2001 <b>[PSD BACT Limit]</b>	3.B.15	PM / PM <sub>10</sub> (filterable + condensable)	1.93 lb. / hour
AA-016*	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 <b>[PSD BACT Limit]</b>	3.B.16	PM / PM <sub>10</sub> (filterable + condensable)	1.93 lb. / hour
AA-040	40 CFR Part 63, Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines 40 CFR 63.6580, 63.6585(a) and (c), 63.6590(a)(1)(iii), and 63.6605; Subpart ZZZZ	3.B.17	HAPs	Applicability
	40 CFR 63.6640(f)(1), (2), and (4); Subpart ZZZZ	3.B.18		Operating Requirements
	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 <b>[PSD BACT Limit]</b>	3.B.19	NO <sub>x</sub>	Maintain Valve Riming at Four (4) Degrees Before Top Dead Center
AA-001 AA-010	40 CFR 64 – Compliance Assurance Monitoring (CAM)	3.B.20	CO	General Applicability
AA-010	40 CFR 64.2(a), CAM		PM / PM <sub>10</sub>	

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
<b>Copper Tube Operations</b>				
AB-100	11 Miss. Admin. Code Pt. 2, R. 2.2.(B)(10)., as established in the federally enforceable Permit to Construct issued July 12, 2001  [PSD-Avoidance Limit]	3.B.21	VOCs	121.51 tpy (Rolling 12-Month Total)
AB-100	11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).	3.B.6	PM (filterable)	$E = 4.1(p^{0.67})$

\* While these emission points have applicable limits, these units have not operated since 2009. Prior to operating any of these units, the permittee is required to notify the MDEQ of their intent to do so.

3.B.1 For Emission Point AA-000, the permittee shall not exceed 8,568 hours of operation per year based on a rolling 12-month period.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued July 12, 2001 – PSD Avoidance Limit)

3.B.2 For Emission Point AA-000, the permittee shall limit the emission of hazardous air pollutants (HAPs) to no more than 24.0 tons per year (tpy) for all combined HAPs and no more than 9.0 tpy for any individual HAP. Compliance shall be determined based on a rolling 12-month period.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit issued December 22, 2004 – MACT Avoidance Limit)

3.B.3 For Emission Points AA-001, AA-010, AA-014, AA-016, and AA-054, the permittee shall not cause or permit the emission of gas containing sulfur oxides (measure as sulfur dioxide) in excess of 500 ppm (by volume).

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

3.B.4 For Emission Points AA-040, AA-055, AB-004, AB-005, AB-013, and AB-017, the maximum permissible emission of ash and/or particulate matter from any fuel burning equipment equal to or greater than ten (10) million BTU (MMBTU) per hour heat input shall not exceed the emission rate determined by the following relationship:

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

where “E” is the emission rate in pounds per million BTU per hour heat input and “P” is the heat input in MMBtu/hr.

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

- 3.B.5 For Emission Points AA-055, AB-004, AB-005, AB-013, and AB-017, the permittee shall limit the discharge of sulfur oxides from fuel burning equipment in which the fuel is burned primarily to product heat or power by indirect heat transfer to less than 4.8 pounds (measures as sulfur dioxide) per million BTU heat input.

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

- 3.B.6 For Emission Points AA-100 and AB-100, the permittee shall limit the emissions of particulate matter (PM) to no more than the rate 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.

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

- 3.B.7 For Emission Point AA-001, the permittee shall limit the emission of PM / PM<sub>10</sub> (filterable + condensable) to no more than 12.66 pounds (lb.) 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 September 28, 2001 – PSD BACT Limit)

- 3.B.8 For Emission Point AA-001, the permittee shall limit the emission of carbon monoxide (CO) to no more than 12.9 lb. / 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 September 28, 2001 – PSD BACT Limit)

- 3.B.9 For Emission Point AA-001, the permittee shall not operate the Shaft Furnace unless the recuperative thermal oxidizer (RTO) is simultaneously operating in such a manner as to effectively control emissions generated by the furnace.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 – PSD BACT Limit)

- 3.B.10 For Emission Point AA-001, the permittee shall operate the recuperative thermal oxidizer (RTO) such that the combustion chamber retention time for the air stream is maintained at a minimum of 0.3 seconds and the hourly average combustion chamber temperature is maintained at a level greater than 1,400°F.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5., and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 [PSD BACT Limit])

- 3.B.11 For Emission Point AA-010, the permittee shall limit emission of PM / PM<sub>10</sub> (filterable + condensable) to no more than 7.65 lb./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 September 28, 2001 [PSD BACT Limit])

- 3.B.12 For Emission Point AA-010, the permittee shall limit the emission of CO to no more than 29.58 lb. / 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 September 28, 2001 – PSD BACT Limit)

- 3.B.13 For Emission Point AA-010, the permittee shall not operate the Melt Furnace unless the thermal oxidizer and baghouses are all simultaneously operating in such a manner to effectively control emissions generated by the furnace.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 – PSD BACT Limit)

- 3.B.14 For Emission Point AA-010, the permittee shall operate the thermal oxidizer (TO) such that the combustion chamber retention time for the air stream is maintained at a minimum of 0.3 seconds and the hourly average combustion chamber temperature is maintained at a level greater than 1,400°F.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 – PSD BACT Limit)

- 3.B.15 For Emission Point AA-014, the permittee shall limit emission of PM / PM<sub>10</sub> (filterable + condensable) to no more than 1.93 lb. / hour and shall route emissions from the furnace to the baghouse at all times when the furnace is in operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 [PSD BACT Limit])

- 3.B.16 For Emission Point AA-016, the permittee shall limit emission of PM / PM<sub>10</sub> (filterable + condensable) to no more than 1.93 lb. / hour and shall route emissions from the furnace to the baghouse at all times when the furnace is in operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 – PSD BACT Limit)

- 3.B.17 For Emission Point AA-040, the permittee is subject to and shall comply with all applicable requirements found in 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) and 40 CFR Part 63, Subpart A – General Provisions (as required in Table 8 of Subpart ZZZZ).

For purposes of this subpart, the engine is considered an existing, emergency, compression ignition (CI) stationary RICE located at an area source of HAPs and is subject to the applicable requirements for emergency engines under Subpart ZZZZ.

The permittee shall at all times be in compliance with the applicable requirements of

Subpart ZZZZ and shall operate and maintain the engine in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by Subpart ZZZZ have been achieved.

Determination of whether such operation and maintenance procedures are being used will be based on information available to the MDEQ, which may include (but is not limited to) monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspections of the source.

(Ref.: 40 CFR 63.6580, 63.6585(a), (c), 63.6590(a)(1)(iii), and 63.6605; Subpart ZZZZ)

3.B.18 Emission Point AA-040 shall be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ provided the engine only operates in an emergency, during maintenance and testing, and during non-emergency situations for 50 hours per year as described in (c) below. If the permittee does not operate an engine according to the requirements in (a) – (c) below, the engine will not be considered an emergency engine under Subpart ZZZZ and must meet all applicable requirements for non-emergency engines.

- (a) There is no limit on the use of the engine during an emergency situation.
- (b) The permittee may operate the engine for maintenance checks and readiness testing for a maximum of 100 hours per calendar year provided the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or insurance company associated with the engines. The permittee may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating the federal, state, or local standards require maintenance testing of the engine beyond 100 hours per calendar year.
- (c) The emergency engine may be operated 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 provided in paragraph (b). Except as provided in 40 CFR 63.6640(f)(ii), the 50 hours per 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 63.6640(f)(1), (2), and (4); Subpart ZZZZ)

3.B.19 For Emission Point AA-040, the permittee shall maintain and operate the engine such that the valve timing remains at four (4) degrees before top dead center in order to reduce the emissions of nitrogen oxides (NO<sub>x</sub>).

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5., and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued September 28, 2001 – PSD BACT Limit)

- 3.B.20 For Emission Points AA-001 and AA-010, the permittee is subject to and shall comply with all applicable requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM).

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

- 3.B.21 For Emission Point AB-100, the permittee shall limit the emission of volatile organic compounds (VOCs) to no more than 121.51 tpy based on a rolling 12-month period.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued July 12, 2001 – 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 <sub>2</sub>	4.8 lb. / MMBTU

3.C.1 The maximum permissible emission of ash and/or particulate matter from any fossil fuel burning installation of less than 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-040	40 CFR 63.6603(a) and Table 2d, Subpart ZZZZ	3.D.1	HAPs	Maintenance Requirements
	40 CFR 63.6625(e)(3), (h), 63.6640(a), and Table 6, Subpart ZZZZ	3.D.2		Operational Requirements

3.D.1 For Emission Point AA-040, the permittee shall comply with the following requirements:

- (a) Change oil and filter every 500 hours of operation or annually, whichever comes first or perform an oil analysis at the same frequency in order to extend the oil change requirement in accordance with 40 CFR 63.6625(i).
- (b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace when necessary.
- (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first and replace as necessary.

If the engine is operating during an emergency and it is not possible to shut down the engine in order to perform the maintenance practice according to the schedule listed in (a) – (c) above, or if performing the maintenance practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The maintenance practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated.

(Ref.: 40 CFR 63.6603(a) and Table 2d; Subpart ZZZZ)

3.D.2 For Emission Point AA-040, the permittee shall operate and maintain the engine according to the manufacturer’s emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. The permittee shall minimize the engine’s time spent at idle during startup and minimize the engine’s startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

(Ref.: 40 CFR 63.6625(e)(3) and (h), 63.6640(a), and Table 6; Subpart ZZZZ)

## **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 compliance certification 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 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, the monitoring, testing, recordkeeping, and reporting requirements of Section 5 herein supersede the requirements of any preceding permit to construct and/or operate upon permit issuance.

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

**B. SPECIFIC MONITORING AND RECORDKEEPING REQUIREMENTS**

<b>Emission Point(s)</b>	<b>Applicable Requirement</b>	<b>Condition Number</b>	<b>Pollutant / Parameter Monitored</b>	<b>Monitoring / Recordkeeping Requirement</b>
AA-000	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.1	Hours of Operation	Monitor and Record Hours of Operation Monthly
		5.B.2	HAPs	Monitor and Maintain Records of All HAP-Emitting Processes
AA-001 AA-010 AA-014 AA-016	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.3	PM / PM <sub>10</sub> Opacity	Stack Testing Requirements
AA-001 AA-010	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.4	CO	Stack Testing Requirements
AA-014 AA-016	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.5	Pressure Drop	Monitor and Record Pressure Drop Across Each Baghouse Daily and Maintain Above 1 in. of Water
AA-040	40 CFR 63.6625(f) and 63.6655(f)(2); Subpart ZZZZ 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.6	HAPs	Install Non-Resettable Hour Meter and Record Hours of Operation
	40 CFR 63.6655(a)(1), (2), (5), and (e)(2) and 63.6660; Subpart ZZZZ	5.B.7		General Recordkeeping Requirements
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.8	NO <sub>x</sub>	Maintain Documentation that Valve Timing is at Four (4) Degrees Before Top Dead Center
AB-100	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.9	VOCs	Monitor and Maintain Records on VOC-Containing Material Usage
AA-001 AA-010	40 CFR 64.3(a), (b), and 64.6(c), CAM	5.B.10	CO	Continuously Monitor Temperature in the Combustion Chamber
AA-010		5.B.11	PM / PM <sub>10</sub>	Monitor Pressure Drop Across the Baghouse Daily When in Operation
AA-001 AA-010	40 CFR 64.7(b) and (c), CAM	5.B.12	VOCs PM / PM <sub>10</sub>	Operation and Maintenance Requirements for Monitoring Systems
	40 CFR 64.7(d), CAM	5.B.13		Corrective Action Response to an Excursion / Exceedance of a Cam Indicator
	40 CFR 64.8, CAM	5.B.14		Develop a Quality Improvement Plan (QIP) Upon Proper Request

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Monitoring / Recordkeeping Requirement
AA-001 AA-010	40 CFR 64.9(b), CAM	5.B.15	VOCs PM / PM <sub>10</sub>	Maintain CAM Records As Specified
AA-010 AA-014 AA-016	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.16	PM / PM <sub>10</sub> CO	Stack Testing Requirements

5.B.1 For Emission Point AA-000, the permittee shall monitor and record the hours of operation and calculate the rolling 12-month total on a monthly basis.

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

5.B.2 For Emission Point AA-000, the permittee shall maintain sufficient records to document the contents and quantity of each process related ink, solvent, coating, adhesive, or any other process-related HAP-containing material used in a rolling 12-month total basis and calculate HAP emissions for the same period. For HAPs generated by the manufacturing processes, including from smelting, fuel combustion, etc., the permittee may use the HAP emission factors from the most recent version of the Title V application and actual production rates and natural gas usage to determine monthly HAP emissions.

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

5.B.3 For Emission Point AA-001, the permittee shall demonstrate compliance with the applicable PM / PM<sub>10</sub> limit by stack testing once every five years and no later than sixty (60) months from the previous test.

For Emission Point AA-010, the permittee shall demonstrate compliance with the applicable PM / PM<sub>10</sub> limit by stack testing biennially (i.e. no later than 24 months from the date of the previous test). For Emission Points AA-014 and AA-016, the permittee shall demonstrate compliance with the applicable PM / PM<sub>10</sub> limits by stack testing one of the units biennially and then testing the other when the next biennial test is required (rotating biennial tests between the two).

All required performance tests for these emission points shall be in accordance with EPA Test Methods 1 through 5 found in Appendix A of 40 CFR 60 and EPA Test Method 201A in conjunction with EPA Test Method 202 found in Appendix M of 40 CFR 51. The permittee may elect to use Method 5 to determine filterable PM less than 10 microns, in lieu of Method 201A. In such case, the permittee must assume filterable PM<sub>10</sub> is equal to the total filterable PM measured by Method 5.

To demonstrate compliance with the opacity limit in Condition 3.A.2., the permittee shall conduct a Method 9 visible emissions evaluation in conjunction with the Method 5 or 201A testing. A minimum of two 6-minute visible emissions evaluations shall be conducted during each test run and averaged together (i.e., the average of a total of at

least six 6-minute evaluations conducted over the course of three 1-hour test runs for PM/PM<sub>10</sub>). If visibility or other conditions prevent the opacity observations from being performed concurrently with the performance testing, the permittee shall reschedule the opacity observations as soon after the performance testing as possible, but no later than thirty (30) days thereafter, and shall notify the MDEQ of the rescheduled date. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the stack test.

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

- 5.B.4 For Emission Point AA-001, the permittee shall demonstrate compliance with the applicable CO limit by stack testing once every five years (i.e. no later than 60 months from the date of the previous stack test) if the results from the previous stack test demonstrated CO emissions were less than 50% of the emission limit. However, if the CO emissions from the previous stack test were greater than 50% of the emission limit, the permittee shall conduct the stack test biennially (i.e. no later than 24 months from the date of the previous test).

For Emission Point AA-010, the permittee shall demonstrate compliance with the applicable CO limit by stack testing biennially (i.e. no later than 24 months from the date of the previous test).

All required performance tests for these emission points shall be in accordance with EPA Test Method 10 found in Appendix A of 40 CFR 60.

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

- 5.B.5 For Emission Points AA-014 and AA-016, the permittee shall monitor and maintain records of the pressure drop across each baghouse on a daily basis when in operation. If a respective furnace does not operate on a given day, the daily records shall indicate such. The pressure drop across each baghouse shall be maintained above 1 inch (in.) of water.

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

- 5.B.6 For Emission Point AA-040, the permittee shall install a non-resettable hour meter on the engine if one is not already installed. The permittee shall keep records on the hours of operation of the engine that is recorded through the hour meter for each calendar year. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation.

(Ref.: 40 CFR 63.6625(f) and 63.6655(f)(2); Subpart ZZZZ)

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

- 5.B.7 For Emission Point AA-040, the permittee shall keep the following records:

(a) A copy of each notification and report submitted to comply with Subpart ZZZZ;

- (b) Records of the occurrence and duration of each malfunction of the engine or hour meter;
- (c) Records of actions taken during periods of malfunction to minimize emissions, including corrective action to restore the malfunctioning engine or hour meter to its normal manner of operation; and
- (d) Records of the maintenance conducted on each engine in order to demonstrate the engine was operated and maintained in accordance with the maintenance plan.

All records shall be in a form suitable and ready for expeditious review for a period of five (5) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records may be kept in an electronic or hard copy format.

(Ref.: 40 CFR 63.6655(a)(1), (2), (5), and (e)(2), and 63.6660; Subpart ZZZZ)

- 5.B.8 For Emission Point AA-040, the permittee shall keep documentation verifying that the valve timing remains at the required setting of four (4) degrees before top dead center.

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

- 5.B.9 For Emission Point AB-100, the permittee shall maintain sufficient records to document the contents and quantity of each process-related ink, solvent, coating, adhesive, or any other process-related VOC-containing material used on a rolling 12-month total basis.

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

- 5.B.10 For Emission Points AA-001 and AA-010, the permittee shall continuously monitor the temperature in the combustion chamber of the thermal oxidizers and record the hourly average in accordance with the CAM Plan found in Appendix C of the permit.

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

- 5.B.11 For Emission Point AA-010, the permittee shall perform daily visual observations in accordance with EPA Method 22 and continuously monitor the pressure drop across each baghouse in accordance with the CAM Plan found in Appendix C of the permit.

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

- 5.B.12 For Emission Points AA-001 and AA-010, the permittee shall comply with the following requirements for the monitoring required by the approved CAM Plan:

- (a) *Proper maintenance:* At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (b) *Continued operation:* Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including,

as applicable, calibration checks and required zero and span adjustments), the permittee shall 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 64.3(a) and (b), 64.6(c), Compliance Assurance Monitoring)

- 5.B.13 For Emission Points AA-001 and AA-010, 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 startup, 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 startup 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.14 For Emission Points AA-001 and AA-010, based on the results of a determination made under Condition 5.B.13, 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 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. 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.15 For Emission Points AA-001 and AA-010, the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to Condition 5.B.14 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.16 For Emission Points AA-010, AA-014, and AA-016, should the permittee commence operation of these furnaces, the permittee shall conduct the stack testing required by Conditions 5.B.3 and 5.B.4 within one hundred eight (180) days of start-up.

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

**C. SPECIFIC REPORTING REQUIREMENTS**

<b>Emission Point(s)</b>	<b>Applicable Requirement</b>	<b>Condition Number</b>	<b>Pollutant / Parameter Monitored</b>	<b>Reporting Requirement</b>
AA-000	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.1	Hours of Operation	Semiannual report
			HAPs	
AA-001 AA-010 AA-014 AA-016	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.2	PM / PM <sub>10</sub> CO	Performance test submittal requirements
AA-040	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1). 40 CFR 63.6640(b), 63.6650(f), and Footnote 2 to Table 2d, Subpart ZZZZ	5.C.3	HAPs	Report hours of operation and all deviations
AB-100	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.4	VOCs	Semiannual report
AA-010 AA-014 AA-016	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.5	Operating Requirement	Provide start-up notification
AA-001 AA-010	40 CFR 64.9(a), CAM	5.C.6	Temperature Pressure Drop	Semiannual reporting requirements
	40 CFR 64.7(e), CAM	5.C.7		Promptly notify DEQ of failure to achieve limit / standard though no excursion or exceedance was indicated by approved monitoring

5.C.1 The permittee shall submit a semiannual report in accordance with Condition 5.A.4 that contains a summary of the hours of operation and the total and individual HAP emissions for each consecutive rolling 12-month period in the reporting period. This report shall include a summary of the specific materials tracked, the HAP contents of each (as applicable), and the quantity of each material (e.g., solvent, fuel) used during the reporting period, as well as production rates for HAP-emitting manufacturing processes.

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

5.C.2 For Emission Points AA-001, AA-010, AA-014, and AA-016, the permittee shall submit the following notifications and/or documents for each performance test:

- (a) A written test protocol at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. After the first successful submittal of a written test protocol in conjunction with a performance test, the permittee may request that the resubmittal of the testing protocol be waived for subsequent testing by certifying in writing at least thirty (30) days prior to subsequent testing that all conditions for testing remain unchanged such that the original protocol can and will be followed.

- (b) A notification of the scheduled test date(s) should be submitted ten (10) days prior to the scheduled test date(s) so that an observer may be afforded the opportunity to witness the test(s).
- (c) The results from each performance test shall be submitted to the DEQ within sixty (60) days following the completion of the test(s).

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

- 5.C.3 For Emission Point AA-040, the permittee shall report the annual hours the engine operated in emergency use, including what constituted the emergency, and the annual hours operated in non-emergency use. These annual hours shall be submitted for each calendar year in the semiannual report due January 31 of each year.

The report shall also include all deviations from any emission or operating limitation of Subpart ZZZZ. Such deviations shall include any failure to perform the work practice on the required schedule. In the event a work practice is delayed because the engine is operating during an emergency or if performing the work practice on the required work schedule posed an unacceptable risk under federal, state, or local law, the permittee shall include in the report the reason for the delay.

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

(Ref. 40 CFR 63.6640(b), 63.6650(f), and Table 2d (Footnote 2); Subpart ZZZZ)

- 5.C.4 For Emission Point AB-100, the permittee shall submit a semiannual report in accordance with Condition 5.A.4 that contains a summary of the VOC emissions for each consecutive rolling 12-month period in the reporting period. This report shall include a summary of the specific materials, the VOC content of each, and the quantity of each material used during the reporting period.

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

- 5.C.5 For Emission Points AA-010, AA-014, and AA-016, the permittee shall notify the MDEQ at least sixty (60) days prior to start-up if the permittee intends to place these emission units back into operation. Prior to start-up, the permittee shall determine if any changes to the emission source constitute a modification according to Condition 1.20 of the permit herein and shall submit the appropriate application to address such modification.

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

- 5.C.6 For Emission Points AA-001 and AA-010, the permittee shall submit a report 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.14. 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-001 and AA-010, 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)

**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;
  - (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

11 Miss. Admin. Code Pt. 2, Ch. 1.	Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants
11 Miss. Admin. Code Pt. 2, Ch. 2.	Permit Regulations for the Construction and/or Operation of Air Emissions Equipment
11 Miss. Admin. Code Pt. 2, Ch. 3.	Regulations for the Prevention of Air Pollution Emergency Episodes
11 Miss. Admin. Code Pt. 2, Ch. 4.	Ambient Air Quality Standards
11 Miss. Admin. Code Pt. 2, Ch. 5.	Regulations for the Prevention of Significant Deterioration of Air Quality
11 Miss. Admin. Code Pt. 2, Ch. 6.	Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act
11 Miss. Admin. Code Pt. 2, Ch. 7.	Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act
BACT	Best Available Control Technology
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
DEQ	Mississippi Department of Environmental Quality
EPA	United States Environmental Protection Agency
gr/dscf	Grains Per Dry Standard Cubic Foot
HP	Horsepower
HAP	Hazardous Air Pollutant
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 Part 61 or National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 CFR Part 63
NMVOC	Non-Methane Volatile Organic Compounds
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR Part 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter less than 10 µm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration, 40 CFR 52
SIP	State Implementation Plan
SO <sub>2</sub>	Sulfur Dioxide
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VOC	Volatile Organic Compound
VOHAP	Volatile Organic Hazardous Air Pollutant

## **APPENDIX B**

### **List of Regulations Referenced In this Permit**

11 Miss. Admin. Code, Part 2, Ch. 1. – Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants (Amended November 10, 2016)

11 Miss. Admin. Code, Part 2, Ch. 2. – Permit Regulations for the Construction and/or Operation of Air Emissions Equipment (Amended July 28, 2005)

11 Miss. Admin. Code, Part 2, Ch. 5. – Regulations for the Prevention of Significant Deterioration of Air Quality (Amended April 28, 2016)

11 Miss. Admin. Code, Part 2, Ch. 6. – Air Emission Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act (Amended June 28, 2012)

40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR 64, Compliance Assurance Monitoring

40 CFR 82, Protection of Stratospheric Ozone

## **APPENDIX C**

### **Compliance Assurance Monitoring (CAM) Plan**

## CAM Plan for RTO and TO

**Thermal Oxidizers used to control CO Emissions from the Shaft Furnace (Emission Point AA-001) and the Melt Furnace (Emission Point AA-010)**

	<b>Indicator</b>
<b>Indicator</b>	Combustion Chamber Temperature
<b>Measurement Approach</b>	Combustion Chamber Temperature is measured with a thermocouple with an accuracy of $\pm 5$ °F
<b>Monitoring Methods and Location</b>	Continuous monitoring with thermocouples located in the firebox
<b>Indicator Range</b>	An excursion is defined as an hourly average temperature reading of less than 1,400 °F. Excursions trigger an inspection, corrective action, and a reporting requirement.
<b>Monitoring Frequency</b>	The data signal from the thermocouple is continuously transferred to a data logger.
<b>Data Collection / Recordkeeping</b>	The data is averaged and recorded by the data logger and can be displayed in a strip chart format.
<b>Averaging Period</b>	The hourly average is recorded electronically.
<b>QA/QC Practices</b>	Accuracy of the thermocouple is verified annually against a second calibrated thermocouple which is inserted into the combustion chamber.

## CAM Plan for Baghouses

### Baghouses used to control PM/PM<sub>10</sub> Emissions from the Melt Furnace (Emission Point AA-010)

	Indicator No. 1	Indicator No. 2
<b>Indicator</b>	Visible emissions	Pressure drop
<b>Measurement Approach</b>	Visible emissions from the baghouse exhaust is monitored using EPA Reference Method 22-like procedures (Visible/Not-Visible)	Pressure drop across each baghouse is measured with a pressure transducer.
<b>Monitoring Methods and Location</b>	Measurements are made at the emission point (common exhaust stack for both baghouses)	Pressure taps are located at the baghouse inlets and outlets. The transducers have a minimum accuracy of 0.5 in. H <sub>2</sub> O.
<b>Indicator Range</b>	An excursion is defined as the presence of visible emissions. If any opacity is noted, an EPA Method 9 VEE will be performed. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as a pressure drop >5 in. H <sub>2</sub> O. Excursions trigger an inspection, corrective action and a reporting requirement. The baghouse will be checked if pressure drop < 1.0 in. H <sub>2</sub> O.
<b>Monitoring Frequency</b>	A 6-minute Method 22-like observation is performed daily. If visible emissions are noted, a Method 9 VEE will be performed.	Pressure drop is monitored continuously.
<b>Data Collection / Recordkeeping</b>	The observations will be documented by the observer.	Pressure drop is monitored continuously.
<b>Averaging Period</b>	Method 22-like observation – N/A Method 9 – 6-minute average	N/A
<b>QA/QC Practices</b>	The observer (may be uncertified) will be familiar with Method 22 and will follow Method 22-like procedures. Follow-up Method 9 VEEs will be conducted by a certified reader.	The pressure tracker is calibrated annually. Pressure traps are checked for plugging daily.