

**STATE OF MISSISSIPPI  
AIR POLLUTION CONTROL  
TITLE V PERMIT  
TO OPERATE AIR EMISSIONS EQUIPMENT  
THIS CERTIFIES THAT**

**Calgon Carbon Corporation  
13121 Webre Road  
Bay St. Louis, MS  
Hancock County**

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

**Permit Issued: JAN 13 2014**

**Effective Date: As specified herein.**

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**



**AUTHORIZED SIGNATURE**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Expires: DEC 31 2018**

**Permit No.: 1000-00015**

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### **APPENDIX A LIST OF ABBREVIATIONS USED IN THIS PERMIT**

#### **IMPORTANT DOCUMENTS:**

**40 CFR 63 – Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants  
for Stationary Reciprocating Internal Combustion Engines**

## SECTION 1. GENERAL CONDITIONS

- 1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(a).)
- 1.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(b).)
- 1.3 This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(c).)
- 1.4 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).)
- 1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(e).)
- 1.6 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).)
- 1.7 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.)
  - (a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for

calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgments where such judgments are derived from process and/or emission data which supports the estimates of maximum actual emission. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).)

- (b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D(2).)
  - (c) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D.)
  - (d) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.C.)
- 1.8 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).)
- 1.9 Any document required by this permit to be submitted to the DEQ shall contain a certification by a responsible official that states that, based on information and belief formed

after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.2.E.)

- 1.10 The permittee shall allow the DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- (a) enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
  - (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - (c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - (d) as authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C(2).)
- 1.11 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).)
- 1.12 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).)
- 1.13 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).)
- 1.14 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).)
- 1.15 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.)
- 1.16 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.C(2)., R. 6.4.B., and R. 6.2.A(1)(c).)
- 1.17 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:
- (a) the changes are not modifications under any provision of Title I of the Act;
  - (b) the changes do not exceed the emissions allowable under this permit;
  - (c) the permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such other time frame as provided in other regulations for emergencies) and the notification includes:
    - (1) a brief description of the change(s),
    - (2) the date on which the change will occur,
    - (3) any change in emissions, and
    - (4) any permit term or condition that is no longer applicable as a result of the change;
  - (d) the permit shield shall not apply to any Section 502(b)(10) change. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.F(1).)
- 1.18 Should the Executive Director of the Mississippi Department of Environmental Quality

declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in 11 Miss. Admin. Code Pt. 2, Ch. 3., "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared. (Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 3.)

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

- (f) any change in ownership of the stationary source."
- 1.20 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).)
- 1.21 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).)
- 1.22 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance. Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.
- (a) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.
- (b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.
- (c) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.G.)
- 1.23 Except as otherwise specified herein, the permittee shall be subject to the following provision with respect to emergencies.
- (a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.



- (b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.
  - (c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:
    - (1) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
    - (2) the permitted facility was at the time being properly operated;
    - (3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
    - (4) the permittee submitted notice of the emergency to the DEQ within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
  - (d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.G.)
- 1.24 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, startups, shutdowns and maintenance.
- (a) Upsets (as defined by 11 Miss. Admin. Code Pt. 2, R. 1.2.KK.)
    - (1) The occurrence of an upset constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the permittee demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:
      - (i) an upset occurred and that the permittee can identify the cause(s) of the upset;

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

applicable requirement, the more stringent requirement shall apply.

(c) Maintenance.

- (1) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the permittee can demonstrate the following:
  - (i) the permittee can identify the need for the maintenance;
  - (ii) the source was at the time being properly operated;
  - (iii) during the maintenance the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;
  - (iv) the permittee submitted notice of the maintenance to the DEQ within 5 working days of the time the maintenance began or such other times as allowed by DEQ; and
  - (v) the notice shall contain a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken.
- (2) In any enforcement proceeding, the permittee seeking to establish the applicability of this section has the burden of proof.
- (3) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

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

## SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
AA-000	Plant-Wide Operations
AA-001	Coal Blending Bin No. 1 equipped with a Pulse Jet Baghouse for PM control
AA-002	Coal Blending Bin No. 2 equipped with a Pulse Jet Baghouse for PM control
AA-003	Coal Blending Bin No. 3 equipped with a Pulse Jet Baghouse for PM control
AA-005	Grinding Mill equipped with a baghouse for product recovery and particulate matter (PM) emissions control. Coal leaving the Grinding Mill is pneumatically conveyed to the baghouse.
AA-006	Coal Press Room and Grinding Mill Operations with emissions venting to baghouse for control of PM in this process area.
AA-007	Coal Baker No. 1 (rotary kiln) with a 10.71 MMBTU/hr, low-NO <sub>x</sub> , natural gas-fired burner providing indirect heat. Emissions from the burners are vented through six identical stacks. Off-gases from the Coal Bakers are vented to Emission Point AA-009.
AA-008	Coal Baker No. 2 (rotary kiln) with a 12.60 MMBTU/hr, low-NO <sub>x</sub> , natural gas-fired burner providing indirect heat. Emissions from the burners are vented through five identical stacks. Off-gases from the Coal Bakers are vented to Emission Point AA-009.
AA-009	Coal Baking Particulate and Volatiles Removal System. Off-gases from the Coal Bakers pass through a thermal oxidizer with a 50 MMBTU/hr natural gas-fired burner, a waste heat boiler, and then a Venturi scrubber with mist eliminator.
AA-010	Carbon Activator Furnace No. 1, a multiple hearth furnace with a 18.00 MMBTU/hr, low-NO <sub>x</sub> , natural gas-fired burner, includes a centrifugal separator to reduce and recover particulate matter, followed by a thermal oxidizer equipped with a 10 MMBTU/hr natural gas burner for startups. Emissions from the thermal oxidizer vented to Venturi scrubber with mist eliminators for control of PM and SO <sub>2</sub> .
AA-012	Carbon Activator Furnace No. 2, a multiple hearth furnace with a 18.00 MMBTU/hr, low-NO <sub>x</sub> , natural gas-fired burner, includes a centrifugal separator to reduce and recover particulate matter, followed by a thermal oxidizer equipped with a 10 MMBTU/hr natural gas burner for startups. Emissions from the thermal oxidizer vented to Venturi scrubber with mist eliminators for control of PM and SO <sub>2</sub> .
AA-014	Activated Carbon Packaging Pulse Jet Baghouse No. 1 controlling PM emissions from activated carbon packaging.
AA-015	Activated Carbon Packaging Pulse Jet Baghouse No. 2 controlling general PM emissions from the packaging room.
AA-016	Carbon Pulverizer equipped with a Pulse Jet Baghouse for PM control.

Emission Point	Description
AA-017	Soda ( $\text{Na}_2\text{CO}_3$ ) Silo Bin equipped with a Dust Suppression System to control PM emissions when filling the bin.
AA-018	Raw Materials Handling and Storage Operations, including receipt, storage, and transfer of coal and pitch prior to blending operations.
AA-019	Activated Carbon Fines Recovery System Silo Bin Vent equipped with a Pulse Jet Baghouse for control of PM.
AA-020	Fluidized Bed Product Deduster equipped with a Pulse Jet Baghouse for control of PM.
AA-021	Propane-fired Emergency Generator rated at 80 hp (0.203 MMBTU/hr) with an 8-cylinder spark ignition engine.
AA-022	Diesel-fired Emergency Generator rated at 465 hp (1.181 MMBTU/hr)

## 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, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (a) & (b).

(a) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.

(b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent 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 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, allow, or permit the discharge into the ambient air from any point source or emissions, 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 Paragraph 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.)

### B. Emission Point Specific Emission Limitations & Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AA-000	11 Miss. Admin. Code Pt. 2, R. 1.3.F(1)	3.B.1	PM (filterable only)	$E = 4.1 * p^{0.67}$
AA-001, AA-002, AA-003, AA-014, AA-015, AA-016, AA-017, AA-019,	Title V Operating Permit issued September 4, 2008	3.B.2	PM	Operate the control device at all times when emissions may be vented to it.

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AA-020				
AA-005, AA-006	Construction Permit issued March 2, 2012	3.B.2	PM	Operate the control device at all times when emissions may be vented to it.
AA-007, AA-008, AA-009, AA-010, AA-012	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b)	3.B.4	PM (filterable only)	$E = 0.8808 * I^{0.1667}$
AA-007, AA-008	11 Miss. Admin. Code Pt. 2, R.1.4.A(1)	3.B.5	SO <sub>2</sub>	4.8 lb/MMBTU
AA-007, AA-008, AA-009, AA-010, AA-012	Title V Operating Permit issued September 2, 2003	3.B.6	Fuel Restriction	Combust only natural gas or propane.
AA-009	PSD Construction Permit issued November 27, 1990	3.B.3	PM (filterable only)	4.0 lb/hr and 18 tpy
			SO <sub>2</sub>	7.0 lb/hr and 30.7 tpy
			NO <sub>x</sub>	30.0 lb/hr and 131.4 tpy
AA-010, AA-012	PSD Construction Permit issued November 27, 1990 (basis for lb/hr limits) and Construction Permit issued March 2, 2012 (PSD Avoidance and basis for tpy limits)	3.B.3	PM/PM <sub>10</sub> /P M <sub>2.5</sub> (filterable + condensable)	4.0 lb/hr (3-hour average) individual limit, not to exceed 16.63 tons/year combined limit (12 month rolling total)
		3.B.12	SO <sub>2</sub>	7.0 lb/hr (3-hour average) individual limit, not to exceed 40.0 tons/year combined limit (12 month rolling total)
			NO <sub>x</sub>	10.0 lb/hr (3-hour average) individual limit, not to exceed 70.0 tons/year combined limit (12 month rolling total)
AA-009	11 Miss. Admin. Code Pt. 2, R. 1.3.H(1)	3.B.7	PM (filterable only)	0.2 gr/dscf @ 12% CO <sub>2</sub>

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AA-009	NSPS Subpart Dc, 40 CFR 60.40c(a)	3.B.9	Fuel Requirement	No emission standards apply. See Section 5 for applicable recordkeeping.
AA-009, AA-010, AA-012	11 Miss. Admin. Code Pt. 2, R. 1.4.B(1)	3.B.8	SO <sub>2</sub>	500 ppmv
AA-014	PSD Construction Permit issued November 27, 1990	3.B.3	PM (filterable only)	2.0 lb/hr and 9 tpy
AA-016	PSD Construction Permit issued November 27, 1990	3.B.3	PM (filterable only)	0.5 lb/hr and 2.2 tpy
AA-021 AA-022	NESHAP Subpart ZZZZ, 40 CFR 63.6585 and 63.6590(a)(1)(iii)	3.B.10 and 3.B.11	HAP	Change oil and filter every 500 hours of operation or annually; inspect air cleaner every 1,000 hours of operation or annually; and inspect all hoses and belts every 500 hours of operation or annually.
AA-005	Construction Permit issued March 2, 2012	3.B.12	PM/PM <sub>10</sub> /P M <sub>2.5</sub> (filterable only)	1.18 lb/hr (3-hour average)
AA-006	Construction Permit issued March 2, 2012	3.B.12	PM/PM <sub>10</sub> /P M <sub>2.5</sub> (filterable only)	0.73 lb/hr (3-hour average)

3.B.1 For the activated carbon manufacturing process, the permittee shall not cause, permit, or allow the emission of particulate matter in total quantities in excess of the amount determined by the relationship  $E = 4.1 * p^{0.67}$ , 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.2 For Emission Points AA-001, AA-002, AA-003, AA-005, AA-006, AA-014, AA-015, AA-016, AA-017, AA-019, and AA-020, the control devices shall be operated at all times when emissions may be vented to them.



(Ref.: Title V Operating Permit issued September 4, 2008 and Construction Permit issued March 2, 2012)

- 3.B.3 For Emission Points AA-009, AA-014, and AA-016, the permittee shall comply with the emission limits established in the PSD Construction Permit issued November 27, 1990. These limits are specifically stated in Table 3.B above.

(Ref.: PSD Construction Permit issued November 27, 1990)

- 3.B.4 For Emission Points AA-007, AA-008, AA-009 (i.e., emissions from the thermal oxidizer burner only), AA-010 and AA-012 (i.e., emissions from the activator burners only), emissions of particulate matter shall not exceed the emission rate as determined by the relationship  $E = 0.8808 * I^{0.1667}$ , where  $E$  is the emission rate in pounds per million BTU per hour heat input and  $I$  is the heat input in millions of BTU per hour.

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

- 3.B.5 For Emission Points AA-007 and AA-008, the maximum discharge of sulfur oxides shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

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

- 3.B.6 For Emission Points AA-007, AA-008, AA-009, AA-010, and AA-012, the permittee shall combust only natural gas or propane in the burners.

(Ref.: Title V Operating Permit issued September 2, 2003)

- 3.B.7 For Emission Point AA-009, the maximum discharge of particulate matter shall not exceed 0.2 grains per standard dry cubic foot (gr/dscf) of flue gas calculated to twelve percent (12%) carbon dioxide by volume for products of combustion. This limitation shall apply when the incinerator is operating at design capacity.

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

- 3.B.8 For Emission Points AA-009, AA-010, and AA-012, the permittee shall not cause or permit the emission of gas containing sulfur oxides (measured as sulfur dioxide) in excess of 500 ppm (volume).

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

- 3.B.9 For the waste heat boiler recovering heat from the thermal oxidizer under Emission Point AA-009, the permittee is subject to the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60,

Subpart Dc.

(Ref.: 40 CFR 60.40c(a))

- 3.B.10 For Emission Point AA-021 and AA-022, the permittee is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (i.e., the “RICE MACT”), 40 CFR Part 63, Subpart ZZZZ. AA-021 and AA-022 are all existing, emergency RICE located at an area source.

The permittee must comply with the following requirements except during periods of startup:

- (1) Change oil and filter every 500 hours of operation or annually, whichever comes first, or utilize the oil analysis program under 63.6625(i) to extend the oil change requirement;
- (2) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
- (3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

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

- 3.B.11 For Emission Points AA-021 and AA-022, the permittee shall operate and maintain the affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

(Ref.: 40 CFR 63.6605(b))

- 3.B.12 For Emission Points AA-005, AA-006, AA-010, and AA-012, the permittee shall comply with the emission limits established in the Construction Permit issued March 2, 2012. These limits are specifically stated in Table 3.B. above.

(Ref.: Construction Permit issued March 2, 2012)

C. Insignificant and Trivial Activity Emission Limitations & Standards

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

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

## SECTION 4. COMPLIANCE SCHEDULE

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

## SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

### A. General Monitoring, Recordkeeping and Reporting Requirements

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

Code Pt. 2, R. 6.3.A(3)(c)(2).)

- 5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements, if applicable. All test methods shall be those versions or their equivalents approved by the DEQ and the EPA.
- 5.A.7 The permittee shall maintain records of any alterations, additions, or changes in equipment or operation.

**B. Specific Monitoring and Recordkeeping Requirements**

<b>Emission Point(s)</b>	<b>Pollutant/Parameter Monitored</b>	<b>Monitoring/Recordkeeping Requirement</b>	<b>Condition Number</b>	<b>Applicable Requirement</b>
AA-001, AA-002, AA-003, AA-005, AA-006, AA-014, AA-015, AA-016, AA-017, AA-019, AA-020	PM	Perform quarterly inspections of baghouses and maintain records of these inspections and an inventory of spare parts.	5.B.1	11 Miss. Admin. Code Pt.2, R.6.3.A(3)(a)(2)
AA-009, AA-010, AA-012	PM, SO <sub>2</sub> , and NO <sub>x</sub>	Stack test in accordance with EPA Test Methods 1-5, 6, and 7	5.B.2	11 Miss. Admin. Code Pt.2, R.6.3.A(3)(a)(2)
AA-007, AA-008, AA-009, AA-010, AA-012	Fuel	Monitor and maintain monthly records of the total quantity of each fuel combusted.	5.B.3	11 Miss. Admin. Code Pt.2, R.6.3.A(3)(a)(2)
AA-005, AA-006, AA-014, AA-016, AA-020	PM	Compliance Assurance Monitoring (CAM) requirements.	5.B.4	40 CFR Part 64  11 Miss. Admin. Code Pt.2, R.6.3.A(3)(a)(1)
AA-009	PM and SO <sub>2</sub>	Compliance Assurance Monitoring (CAM) requirements.	5.B.5	
AA-010, AA-012	PM and SO <sub>2</sub>	Compliance Assurance Monitoring (CAM) requirements.	5.B.6	

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number	Applicable Requirement
AA-005, AA-006, AA-009, AA-010, AA-012, AA-014, AA-016, AA-020	Additional CAM Requirements	See additional monitoring and recordkeeping requirements in §§64.7, 64.8, and 64.9.	5.B.7	
AA-009	Thermal Oxidizer Temperature	Continuously monitor the combustion chamber temperature of the thermal oxidizer and maintain it at 1,400°F or greater when the Coal Bakers are operating.	5.B.8	11 Miss. Admin. Code Pt.2, R.6.3.A(3)(a)(2)
AA-009	Monthly Fuel Recordkeeping	Record the amount of fuel combusted during each calendar month.	5.B.9	40 CFR 60.48c(g)(2)
AA-021 AA-022	Monitoring, operating, and maintenance	Monitoring, operating, and maintenance requirements	5.B.10	40 CFR 63.6625(e), (f), and (h)
			5.B.11	40 CFR 63.6640(f)(1) through (4)
			5.B.12	40 CFR 63.6655(e) and (f) and 63.6660(b) and (c)
AA-010 AA-012	PM, SO <sub>2</sub> , NO <sub>x</sub>	Develop Emission Factors	5.B.13	Construction Permit issued March 2, 2012
	PM <sub>10</sub> /PM <sub>2.5</sub>	Stack Testing	5.B.14	

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number	Applicable Requirement
	Recordkeeping	Records of Emission Factors	5.B.15	
Facility-Wide	Recordkeeping	Projected Actual Emissions Recordkeeping	5.B.16	Construction Permit issued March 2, 2012

- 5.B.1 For Emission Points AA-001, AA-002, AA-003, AA-005, AA-006, AA-014, AA-015, AA-016, AA-017, AA-019, and AA-020, the permittee shall perform and record results of quarterly inspections of the baghouses and shall maintain an inventory of spare parts, including bags, cages, diaphragm, and solenoid valves.

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

- 5.B.2 For Emission Points AA-009, AA-010, and AA-012, the permittee shall demonstrate compliance with the PM, SO<sub>2</sub>, and NO<sub>x</sub> emission limits set forth in Section 3.B of this permit by stack testing in accordance with EPA Test Methods 1-5, 6, and 7, respectively. All test methods shall be those versions which are in effect upon permit issuance. The stack testing shall be performed when the emission units are operating as close to their maximum capacity as operating conditions allow. For purposes of demonstrating compliance with the opacity limit, the permittee shall conduct opacity observations concurrently with the performance tests.

The permittee shall perform the stack testing above shall be conducted within 24 months of the previous stack test. Should a stack test for any pollutant result in an emission rate less than 50% of the permitted limit, the permittee may waive the following stack test for that pollutant. If a stack test is waived for a pollutant, the next required stack test shall be within 48 months of the previous stack test. The permittee shall notify the DEQ in writing prior to waiving a stack test under this provision.

The permittee shall submit a stack test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. If the initial stack test protocol is acceptable, subsequent test protocols may be waived if these protocols contain no significant changes. Also, the DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s).

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



- 5.B.3 For Emission Points AA-007, AA-008, AA-009, AA-010, and AA-012, the permittee shall monitor and maintain monthly records of the total quantity of each fuel combusted (i.e., natural gas or propane).

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

- 5.B.4 The permittee shall comply with the Compliance Assurance Monitoring (CAM) Plan below for Emission Points AA-005, AA-006, AA-014, AA-016, and AA-020

(Ref.: 40 CFR 64):

	Indicator No. 1	Indicator No. 2	Indicator No. 3
Indicator	Filter Differential Pressure	Baghouse and Bag Condition	Stack Observations
Measurement Approach	Differential Pressure is measured in inches of water using a pressure transmitter.	Internal baghouse inspections are conducted during general plant turnaround. External inspections shall be conducted quarterly.	Baghouse exhaust stack observed for visible dust emissions.
Monitoring Methods and Location	Continuous measurement with alarm points	Baghouse inspections conducted to ensure that equipment and filter media are operating properly and that deterioration of equipment is not occurring.	Weekly visual observations of exhaust stacks for a period of six (6) consecutive minutes to ensure equipment is operating properly and filter media is not deteriorating.
Indicator Range	Baghouse Pressure Drops: <div><div>Range</div><div>Alarm</div></div>	Evidence of deterioration of the bags or equipment indicates that maintenance needs to be performed on the baghouse. An excursion is defined as a failure to conduct the inspection under the defined schedule.	An excursion is defined as any observation of visible emissions from the baghouse stack.
Press Room	0-25”7.0”		Upon any observation of visible emissions from a baghouse stack, the permittee shall immediately evaluate the baghouse and take the necessary corrective action to eliminate visible emissions. After completion of corrective action, the baghouse stack shall be monitored for visible emissions for three consecutive days following restart. If no visible emissions are noted after three days, the permittee may resume weekly observations.
Grinding Mill	0-12”7.85”		
Packaging	0-25”7.0”		
Pulverizer	0-30”7.0”		
Product Deduster	0-20”15.0”		
	If an alarm point is activated, the unit will be thoroughly evaluated and repairs made promptly. Similarly, if the differential pressure drops to 0” or an abnormal level while emissions are being vented to the filter, an evaluation will occur and repairs made promptly. Either of the above scenarios constitutes an excursion.		
Data Collection Frequency	Continuous	Once per quarter for external	Visual observations shall be

	Indicator No. 1	Indicator No. 2	Indicator No. 3
Indicator	Filter Differential Pressure	Baghouse and Bag Condition	Stack Observations
		inspections and once per turnaround for internal inspections	conducted weekly, unless otherwise specified above. A log of the observation date and time and results of the observation shall be recorded in a written or electronic log.
Averaging Period	Instantaneous	Not Applicable	None.
Recordkeeping	Records of the continuous differential pressure readings, the excursions, and any corrective action shall be maintained.	Records of each inspection and any maintenance performed, as well as a list of spare parts, shall be maintained.	Records of the weekly (or daily) visual observations and any corrective action shall be maintained.
QA/QC	The pressure transmitter is periodically calibrated according to the manufacturer's specifications.	Personnel shall be trained to perform the inspections, maintenance, and recordkeeping.	Visual emissions observers shall be trained on stack observation procedures per EPA Test Method 22.

5.B.5 The permittee shall comply with the CAM Plan below for Emission Point AA-009 (Ref.: 40 CFR Part 64):

	Indicator No. 1	Indicator No. 2	Indicator No. 3
Indicator	Scrubber Differential Pressure	Scrubber Liquor Flow	Recirculation Liquor pH
<b>Measurement Approach</b>	Pressure differential across the scrubber is electronically monitored in inches of water.	Scrubber liquor flow is measured electronically with an “in-line” flow meter.	Scrubber liquor pH is measured to ensure removal of SO <sub>2</sub> .
<b>Monitoring Methods and Location</b>	The pressure drop across the scrubber (inlet to exit) is continuously monitored to ensure proper operation of the scrubber.	Scrubber liquor flow is continuously measured with an “in-line” flow meter to ensure proper removal of PM and SO <sub>2</sub> .	Redundant pH probes are located within the recirculation liquor loop for continuous pH measurement.
<b>Indicator Range</b>	Minimum of 9 inches of water.  An excursion is defined as a pressure drop less than 9 inches of water, based on a 3-hour rolling average.	Greater than 100 gallons per minute (gpm).  An excursion is defined as a flow less than 100 gpm, based on a 3-hour rolling average.	Minimum of 7.0 standard units (s.u.).  An excursion is defined as a pH less than 7.0, based on a 3-hour rolling average.
<b>Data Collection Frequency</b>	A minimum of four (4) data points collected over a one hour period, evenly spaced.	A minimum of four (4) data points collected over a one hour period, evenly spaced.	A minimum of four (4) data points collected over a one hour period, evenly spaced.
<b>Averaging Period</b>	An hourly average is calculated for each hour from the 4 data points. A 3-hour rolling average is then calculated hourly. A minimum of 12 data points shall be used for the 3-hour rolling average.	An hourly average is calculated for each hour from the 4 data points. A 3-hour rolling average is then calculated hourly. A minimum of 12 data points shall be used for the 3-hour rolling average.	An hourly average is calculated for each hour from the 4 data points. A 3-hour rolling average is then calculated hourly. A minimum of 12 data points shall be used for the 3-hour rolling average.
<b>Recordkeeping</b>	Electronic records are maintained in the plant controls system with continuous trending of the 3-hour rolling average.	Electronic records are maintained in the plant controls system with continuous trending of the 3-hour rolling average.	Electronic records are maintained in the plant controls system with continuous trending of the 3-hour rolling average.
<b>QA/QC</b>	Maintenance records are maintained for the differential pressure scrubbing system. Manual checks to confirm the electronic differential pressure readings are conducted quarterly.	Records of maintenance on the scrubber are maintained in the electronic maintenance management system. The flow meters are calibrated during maintenance turnaround.	pH probes are calibrated whenever probe readings for the same loop vary by more than 1 s.u. or one probe reads less than 7.0 s.u. Probes shall be calibrated no less than once per week. Copies of calibration records are maintained, as well as records of all scrubber maintenance.

5.B.6 The permittee shall comply with the CAM Plan below for Emission Points AA-010 and AA-012

(Ref.: 40 CFR Part 64):

	<b>Indicator No. 1</b>	<b>Indicator No. 2</b>	<b>Indicator No. 3</b>
<b>Indicator</b>	<b>Scrubber Differential Pressure</b>	<b>Scrubber Liquor Flow</b>	<b>Recirculation Liquor pH</b>
<b>Measurement Approach</b>	Pressure differential across the scrubber is electronically monitored in inches of water.	Scrubber liquor flow is measured to ensure removal of SO <sub>2</sub> and PM.	Scrubber liquor pH is measured to ensure removal of SO <sub>2</sub> .
<b>Monitoring Methods and Location</b>	The pressure drop across the scrubber (inlet to exit) is continuously monitored to ensure proper operation of the scrubber.	Scrubber liquor flow to the absorber column is continuously measured electronically with an “in-line” flow meter.	Redundant pH probes are located within the recirculation liquor loop for continuous pH measurement.
<b>Indicator Range</b>	Minimum of 8 inches of water.  An excursion is defined as a pressure drop less than 8 inches of water, based on a 3-hour rolling average.	Greater than 150 gallons per minute (gpm) per activator.  An excursion is defined as a flow less than 150 gpm, based on a 3-hour rolling average.	Minimum of 7.0 standard units (s.u.).  An excursion is defined as a pH less than 7.0, based on a 3-hour rolling average.
<b>Data Collection Frequency</b>	A minimum of four (4) data points collected over a one hour period, evenly spaced.	A minimum of four (4) data points collected over a one hour period, evenly spaced.	A minimum of four (4) data points collected over a one hour period, evenly spaced.
<b>Averaging Period</b>	An hourly average is calculated for each hour from the 4 data points. A 3-hour rolling average is then calculated hourly. A minimum of 12 data points shall be used for the 3-hour rolling average.	An hourly average is calculated for each hour from the 4 data points. A 3-hour rolling average is then calculated hourly. A minimum of 12 data points shall be used for the 3-hour rolling average.	An hourly average is calculated for each hour from the 4 data points. A 3-hour rolling average is then calculated hourly. A minimum of 12 data points shall be used for the 3-hour rolling average.
<b>Recordkeeping</b>	Electronic records are maintained in the plant controls system with continuous trending of the 3-hour rolling average.	Electronic records are maintained in the plant controls system with continuous trending of the 3-hour rolling average.	Electronic records are maintained in the plant controls system with continuous trending of the 3-hour rolling average.
<b>QA/QC</b>	Maintenance records are maintained for the differential pressure scrubbing system. Manual checks to confirm the electronic differential pressure readings are conducted quarterly.	Records of maintenance on the scrubber are maintained in electronic maintenance management system. The flow meters are calibrated during maintenance turnaround.	pH probes are calibrated whenever probe readings for the same loop vary by more than 1 s.u. or one probe reads less than 7.0 s.u. Probes shall be calibrated no less than once per week. Copies of calibration records are maintained, as well as records of all scrubber maintenance.

- 5.B.7 For Emission Points AA-005, AA-006, AA-009, AA-010, AA-012, AA-014, AA-016, and AA-020, the permittee shall comply with any additional applicable monitoring and recordkeeping requirements in §§64.7, 64.8, and/or 64.9.

(Ref.: 40 CFR Part 64)

- 5.B.8 For Emission Point AA-009, the permittee shall continuously monitor the temperature of the thermal oxidizer combustion chamber. Excluding periods of startup and shutdown, when the Coal Bakers are operating, the permittee shall maintain a minimum temperature in the thermal oxidizer of 1,400°F. Should the temperature fall below 1,400°F, the permittee shall take immediate corrective action to restore the thermal oxidizer to its proper operating temperature. The permittee shall electronically record the temperature measurements of the thermal oxidizer at least every 15 minutes when the Coal Bakers are operating. The permittee shall note all times that the thermal oxidizer temperature was below 1,400°F and any corrective action taken to restore the thermal oxidizer to its proper operating temperature.

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

- 5.B.9 For Emission Point AA-009, the permittee shall record and maintain records of the amount of each fuel combusted during each calendar month.

(Ref.: 40 CFR 60.48c(g)(2))

- 5.B.10 For Emission Points AA-021 and AA-022, the permittee shall comply with the following monitoring, operating, and maintenance requirements:

- (a) Operate and maintain the stationary RICE in accordance with the manufacturer's emission-related written instruction or develop a maintenance plan that provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions;
- (b) The permittee must install a non-resettable hour meter, if not already installed;
- (c) During periods of startup, the permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

(Ref.: 40 CFR 63.6625(e), (f), and (h))

5.B.11 For Emission Points AA-021 and AA-022, the permittee shall operate the engine according to the following:

- (a) Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited;
- (b) There is no time limit on the use of the engine during emergency situations;
- (c) The engine may be operated for the purpose of maintenance checks and readiness testing in accordance with recommendations by the vendor, manufacturer, insurance company associated with the engine, or local, State, or Federal government. Such testing is limited to 100 hours per year, except that the engine may be operated for maintenance checks and readiness testing beyond 100 hours per year if required by Federal, State, or local standards. In such case, the permittee shall maintain records of such standards.
- (d) The engine may be operated up to 50 hours per year in non-emergency situations; however, those 50 hours count towards the 100-hour limit in (c) above. The 50 hours per year for non-emergency operation cannot be used for peak shaving 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; except that the permittee may operate an emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (d), as long as the power provided by the financial arrangement is limited to emergency power.

(Ref.: 40 CFR 63.6640(f)(1) through (4))

5.B.12 For Emission Points AA-021 and AA-022, the permittee shall maintain the following records and keep each readily accessible for at least five years after the date of each occurrence:

- (a) All maintenance records that demonstrated the engine was operated and maintained in accordance with the maintenance plan identified in Condition 5.B.10(a);

- (b) The hours of operation of the engine recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the event as an emergency, and how many hours are non-emergency operations. If the engines are used for demand response operation as described in Condition 5.B.11(d), the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(Ref.: 40 CFR 63.6655(e) and (f) and 63.6660(b) and (c))

- 5.B.13 For Emission Points AA-010 and AA-012, the permittee shall develop emission factors for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and SO<sub>2</sub> for each furnace. The emission factors shall be based upon the initial stack test and any other relevant operating factors and shall be expressed in mass of pollutant emitted per mass of throughput in the furnace (e.g., lb SO<sub>2</sub> per ton of coal fed to furnace). These emissions factors and the throughput of coal shall be used to determine the total monthly emissions of each pollutant limited above. The emission factors shall be adjusted based upon additional stack testing and as needed to account for any changes to the operating conditions.

(Ref.: Construction Permit issued March 2, 2012)

- 5.B.14 The permittee shall demonstrate compliance with the PM limitations by performing an initial stack test on both AA-010 and AA-012 in accordance with the specified test methods and the procedures outlined below:
  - a. The initial performance test shall be performed within 180 days after initial start-up of the permitted equipment.
  - b. The permittee shall operate the emission source as close to the maximum capacity as operating conditions allow.
  - c. To determine the filterable PM emissions, the permittee shall conduct the performance test using EPA Test Method 5, 201, 201A, or other EPA-approved alternative. The test method used to determine filterable PM emissions shall measure total PM mass, the mass of PM with a diameter of 10 microns and less, and the mass of PM with a diameter of 2.5 microns and less, unless the permittee chooses to assume all the total filterable PM to be 2.5 microns or less. Should the permittee use this assumption and the stack test results show total PM emissions greater than the permit limits established herein, MDEQ shall assume the emission point is out of compliance with all fractions of PM, including PM, PM<sub>10</sub>, and PM<sub>2.5</sub>.
  - d. To determine the condensable PM emissions, the permittee shall conduct the performance test using EPA Test Method 202, or other EPA-approved alternative.
  - e. A written test protocol must 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.

- f. A notification of the scheduled test date(s) 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).
- g. The performance test results must be submitted to MDEQ within sixty (60) days following the completion of the test.
- h. Subsequent compliance testing shall be conducted in accordance with the testing frequency described in the Title V Permit to Operate, upon issuance.

(Ref.: Construction Permit issued March 2, 2012)

- 5.B.15 For Emission Points AA-010 and AA-012, the permittee shall maintain records of the emission factors established for each pollutant and for each furnace and the method by which they were developed. The permittee shall also maintain records of the throughput as related to the emission factors. The permittee shall calculate and record the total monthly emissions from each furnace for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and SO<sub>2</sub> and shall record the total monthly emissions from both furnaces and the 12-month rolling total, calculated monthly.

(Ref.: Construction Permit issued March 2, 2012)

- 5.B.16 The following conditions apply to the emission points modified in the Construction Permit issued March 2, 2012: Projected Actual Emissions Recordkeeping:

- (1) For the project modified and affected emission units, the permittee shall calculate and maintain a record of the annual PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, CO<sub>2e</sub>, NO<sub>x</sub>, and CO emissions, in tons per year on a calendar year basis, for a period of ten (10) years following resumption of regular operations after startup of the change.

(Ref.: 40 CFR 52.21(r)(6)(iii))

- (2) The permittee shall submit a report to the DEQ if the annual emissions, in tons per year, from the modifications allowed by this permit, exceed the baseline actual emissions (as documented in the project application), by a significant amount for any regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained in the permit application. Such report shall be submitted to the DEQ within 60 days after the end of such year. The report shall contain the following:

- (a) The name, address, and telephone number of the major stationary source;
- (b) The annual emissions as calculated pursuant to §52.21(r)(6)(iii); and



- (c) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

(Ref.: 40 CFR 52.21(r)(6)(v))

- (3) The permittee shall make the information required to be documented and maintained pursuant to §52.21(r)(6) available for review upon a request for inspection by DEQ or the general public pursuant to the requirements contained in §70.4(b)(3)(viii) of this chapter.

(Ref.: 40 CFR 52.21(r)(7))

### C. Specific Reporting Requirements

Emission Point(s)	Pollutant/Parameter Monitored	Reporting Requirement	Condition Number	Applicable Requirement
AA-005, AA-006, AA-009, AA-010, AA-012, AA-014, AA-016, AA-020	CAM Reporting	Provide reports containing the information required in §64.9(a).	5.C.1	40 CFR 64.9(a)
AA-009, AA-010, AA-012	PM, SO <sub>2</sub> , NO <sub>x</sub>	Submit a stack test report within 60 days of conducting the stack test.	5.C.2	11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c)(1)
AA-009	Temperature	Report date, time, and duration when the temperature decreases below 1,400°F while the Coal Bakers are operating and any corrective action taken.	5.C.3	11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c)(1)
AA-021 AA-022	Hours of Operation	Hours of operation of each emergency generator for each of the six (6) months in the reporting period.	5.C.4	11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(c)(1)

- 5.C.1 For Emission Points AA-005, AA-006, AA-009, AA-010, AA-012, AA-014, AA-016, and AA-020, the permittee shall submit reports in accordance with Condition 5.A.4 of the following information

(Ref.: 40 CFR 64.9(a)):

- (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 §64.8. 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.

5.C.2 For Emission Points AA-009, AA-010, and AA-012, the permittee shall submit a report of any stack test results within sixty (60) days of conducting the respective stack test.

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

5.C.3 For Emission Point AA-009, the permittee shall report the date, time, and duration that the temperature of the thermal oxidizer combustion chamber is below 1,400°F when the Coal Bakers are operating, excluding periods of startup and shutdown. The permittee shall also report any corrective action taken to restore the thermal oxidizer to its proper operating temperature. The report shall be submitted in accordance with Condition 5.A.4.

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

5.C.4 For Emission Points AA-021 and AA-022, the permittee shall summarize, and report in accordance with 5.A.4, the 12-month rolling total of the hours of operation of each diesel-fired pump or generator for each of the six (6) months in the reporting period.

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

## 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://ecfr.gpoaccess.gov> under Title 40, or DEQ shall provide a copy upon request from the permittee.

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

selling class I or class II refrigerants or offering class I or class II refrigerants for sale, and persons purchasing class I or class II refrigerants.

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

# APPENDIX A

## List of Abbreviations Used In this Permit

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