STATE OF MISSISSIPPI
AIR POLLUTION CONTROL PERMIT

AND PREVENTION OF SIGNIFICANT DETERIORATION (PSD) AUTHORITY

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

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

G-Line

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with 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 and under authority granted by the Environmental Protection Agency under 40 CFR 52.01 and 52.21.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Krystal Rudolph

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: April 22, 2021 **Permit No.: 1000-00015**

SECTION 1. GENERAL CONDITIONS

1.1 This permit is for air pollution control purposes only.

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

1.2 Any activities not identified in the application are not authorized by this permit.

(Ref.: Miss. Code Ann. 49-17-29(1)(b))

1.3 The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for operating without a valid permit pursuant to State Law.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(5).)

1.4 It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D(6).)

1.5 The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(7).)

1.6 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 the permit, unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(a).)

1.7 The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. 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. 2.2.B(15)(b).)

1.8 The permit does not convey any property rights of any sort, or any exclusive privilege.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(c).)

1.9 The permittee shall furnish to the Department of Environmental Quality (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 permit or, for information claimed to be confidential, the permittee shall furnish such records to the 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. 2.2.B(15)(d).)

1.10 Design and Construction Requirements: The stationary source shall be designed and constructed so as to operate without causing a violation of any Applicable Rules and Regulations, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A(1)-(3).)

1.11 The necessary facilities shall be constructed to prevent any wastes or other products or substances to be placed in a location where they are likely to cause pollution of the air or waters of the State without the proper environmental permits.

(Ref.: Miss. Code Ann. 49-17-29(1) and (2))

1.12 Fugitive Dust Emissions from Construction Activities: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A(4).)

1.13 General Nuisances: The permittee shall not cause, permit, 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 gasborne 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.)

1.14 Right of Entry: The permittee shall allow the Mississippi Department of Environmental Quality, Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives, upon presentation of credentials:

A. To enter at reasonable times upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

B. To have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air contaminants or waste waters, fuel, process material, or other material which affects or may affect emission of air contaminants from any source.

(Ref.: Miss. Code Ann. 49-17-21)

1.15 Permit Modification or Revocation: After notice and opportunity for a hearing, the Permit Board may modify the permit or revoke it in whole or in part for good cause shown including, but not limited to, the following:

A. Persistent violation of any of the terms or conditions of this permit;

B. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

C. A change in federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission.

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

1.16 Public Record and Confidential Information: Except for information determined to be confidential under the Mississippi Air and Water Pollution Control Law, all information obtained in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality, Office of Pollution Control.

(Ref.: Miss. Code Ann. 49-17-39)

1.17 Permit Transfer: This permit shall not be transferred except upon approval of the Permit Board.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.16.B.)

1.18 Severability: The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the 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. 2.1.D(7).)

1.19 Permit Expiration: The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance, if construction is suspended for eighteen (18) months or more, or if construction is not completed within a reasonable time. The DEQ may extend the 18-month period upon a satisfactory showing that an extension is justified.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(1)., R. 2.5.C(4)., and R. 5.2.)

1.20 Certification of Construction: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(3).)

1.21 Beginning Operation: After certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by 11 Miss. Admin. Code Pt. 2, R. 2.13.G.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(4).)

1.22 Application for a Permit to Operate: The application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon certification of construction, unless the permittee specifies differently in writing.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(5).)

1.23 Operating Under a Permit to Construct: Upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(6).)

1.24 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:

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

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

(c) 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;

(d) 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 noncompliance, and the corrective actions taken and;

(e) That as soon as practicable but no later than 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. Startups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) Startups and shutdowns are part of normal source operation. Emission limitations apply during startups and shutdowns unless source specific emission limitations or work practice standards for startups 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 11 Mississippi Administrative Code, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for startups and shutdowns. Source specific emission limitations or work practice standards established for startups and shutdowns are subject to the requirements prescribed in 11 Miss. Admin. Code Pt. 2, R. 1.10.B(2)(a) through (e).

(3) Where an upset, as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.,occurs during startup or shutdown, see the upset requirements above.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

1.25 General Duty: All air emission equipment shall be operated as efficiently as possible to minimize emissions of air contaminants.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

1.26 Compliance Testing: Regarding compliance testing:

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 POINT DESCRIPTION

The permittee is authorized to construct and/or modify and operate, upon certification of construction, air emissions equipment, as described in the following table.

Emission Point	Description
AA-016	Carbon Pulverizer equipped with a Pulse Jet Baghouse for PM Control
AA-018	Raw Materials Handling and Storage Operations, including receipt, storage, and transfer of coal and pitch prior to blending operations
G-Line	
AA-032	10.71 MMBTU/hr Natural Gas Fired Coal Baker #3 equipped with low NOx burners – Designed as a rotary kiln. Emissions from the burners vented through 6 identical stacks. Off-gases from Coal Bakers vented to Emission Point AA-046
AA-033	12.60 MMBTU/hr Natural Gas Fired Coal Baker #4 equipped with low NOx burners – Designed as a rotary kiln. Emissions from the burners vented through 5 identical stacks. Off-gases from Coal Bakers vented to Emission Point AA-046
AA-034	18 MMBTU/hr Natural Gas Fired Carbon Activator Furnace #3 equipped with low NOx burners – multiple hearth furnace, or activator. Includes a centrifugal separator to reduce and recover particulate matter, following by a thermal oxidizer equipped with a 40 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_2
AA-035	18 MMBTU/hr Natural Gas Fired Carbon Activator Furnace #4 equipped with low NOx burners – multiple hearth furnace, or activator. Includes a centrifugal separator to reduce and recover particulate matter, following by a thermal oxidizer equipped with a 40 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_2
AA-036	0.6 MMBTU/hr Natural Gas Fired Space Heater
AA-037	5.0 MMBTU/hr Natural Gas Fired Coal Grinding Mill Auxiliary Air Heater
AA-038	537 hp Diesel Fired (Compression Ignition (CI)) Emergency Generator constructed after 2020
AA-039	107 hp Natural Gas Fired (Spark Ignition (SI)) 4-stroke Emergency Generator constructed after 2020
AA-040	175 hp Diesel Fired (CI) Firewater Pump constructed after 2020
AA-041	Coal Blending Bin #4 equipped with a Bin Vent
AA-042	Coal Blending Bin #5 equipped with a Bin Vent
AA-043	Coal Blending Bin #6 equipped with a Bin Vent
AA-044	Coal Grinding Mill #2 equipped with baghouse for PM control. Also includes an auxiliary air heater (Emission Point AA-037) to be used in the event of extra wet coal.
AA-045	Coal Press Room # 2 equipped with baghouse for PM control

Emission Point	Description
AA-046	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-047	Activated Carbon Packaging Pulse Jet Baghouse
AA-048	Activator Area Dust Collector equipped with a Baghouse
AA-049	Pulverized Cyclone Dust Collector equipped with a Bin Vent
AA-050	Soda Silo Bin Vent
AA-051	Press Room Vacuum Filter equipped with a Cartridge Filter
AA-054	Cooling Tower
AA-057	Fugitive Dust Emissions

SECTION 3. EMISSION LIMITATIONS AND STANDARDS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
Facility Wide	11 Miss. Admin. Code Pt. 2, R. 1.3.A.	3.1	Opacity	< 40%
	11 Miss. Admin. Code Pt. 2, R. 1.3.B	3.2		
	11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).	3.3	PM (filterable only)	$E = 4.1*p^{0.67}$
AA-032 AA-033 AA-034 AA-035 AA-046	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.4	PM (filterable only)	$E = 0.8808*I^{-0.1667}$
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.5	SO_2	4.8 lb/MMBTU
AA-036 AA-037 AA-038 AA-039 AA-040	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.6	PM (filterable only)	0.6 lb/MMBTU
AA-016	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.7	$PM/PM_{10}/PM_{2.5}$	BACT: 0.61 lb/hr (3-hour average) not to exceed 2.67 tpy
AA-018	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.8	$PM/PM_{10}/PM_{2.5}$	BACT: Work Practice Standards
AA-032	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.9	$PM/PM_{10}/PM_{2.5}$	BACT: Low NOx burners guaranteed not to exceed 0.08 lb/hr and 0.35 tpy
				BACT: Off-gases from the Coal Bakers vented to Emission Point AA-046 at all times
			NOx	BACT: Low NOx burners guaranteed not to exceed 0.53 lb/hr and 2.32 tpy
		3.10	GHG $CO_2(e)$	BACT: 5,488.85 tpy
AA-033	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.11	$PM/PM_{10}/PM_{2.5}$	BACT: Low NOx burners guaranteed not to exceed 0.09 lb/hr
				BACT: Off-gases from the Coal Bakers vented to Emission Point AA-046 at all times
			NOx	BACT: Low NOx burners guaranteed not to exceed 0.62 lb/hr
		3.12	GHG	BACT: 6,457.48 tpy

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
			$CO_2(e)$	
AA-034	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.13	$PM/PM_{10}/PM_{2.5}$	BACT: 1.54 lb/hr (3-hour average) not to exceed 6.75 tpy
		3.14	NOx	BACT: 4.19 lb/hr (3-hour average) not to exceed 18.35 tpy
		3.15	GHG $CO_2(e)$	BACT: 29,724.89 tpy
		3.16	$PM/PM_{10}/PM_{2.5}$ NOx	Emissions routed to control device at all times.
AA-035	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.17	$PM/PM_{10}/PM_{2.5}$	BACT: 1.54 lb/hr (3-hour average) not to exceed 6.75 tpy
		3.18	NOx	BACT: 4.19 lb/hr (3-hour average) not to exceed 18.35 tpy
		3.19	GHG $CO_2(e)$	BACT: 29,724.89 tpy
		3.16	$PM/PM_{10}/PM_{2.5}$ NOx	Emissions routed to control device at all times.
AA-036	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.20	$PM/PM_{10}/PM_{2.5}$	BACT: Manufacturer guarantee not to exceed 0.004 lb/hr
			NOx	BACT: Manufacturer guarantee not to exceed 0.06 lb/hr
		3.21	GHG $CO_2(e)$	BACT: 307.73 tpy
AA-037	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.22	$PM/PM_{10}/PM_{2.5}$	BACT: Manufacturer guarantee not to exceed 0.04 lb/hr and 0.18 tpy
			NOx	BACT: Manufacturer guarantee not to exceed 0.49 lb/hr and 2.15 tpy
		3.23	GHG $CO_2(e)$	2,564.42 tpy
AA-041 AA-042 AA-043	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.24	$PM/PM_{10}/PM_{2.5}$	BACT: Routed to Bin Vent at all times
		3.25		BACT: Operational Requirement
AA-044 AA-045	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.26	$PM/PM_{10}/PM_{2.5}$	BACT: Routed to the baghouse at all times
		3.25		BACT: Operational Requirement

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
AA-046	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.27	$PM/PM_{10}/PM_{2.5}$	BACT: 2.76 lb/hr (3-hour average) not to exceed 12.09 tpy
		3.28	NOx	BACT: 7.46 lb/hr (3-hour average) not to exceed 32.67 tpy
		3.29	GHG $CO_2(e)$	BACT: 25,724.89 tpy
AA-047	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.30	$PM/PM_{10}/PM_{2.5}$	BACT: 1.45 lb/hr (3-hour average) not to exceed 6.35 tpy
		3.25		BACT: Operational Requirement
		3.26		BACT: Routed to the baghouse at all times
AA-048	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.31	$PM/PM_{10}/PM_{2.5}$	BACT: 0.09 lb/hr (3-hour average) not to exceed 0.39 tpy
		3.25		BACT: Operational Requirement
		3.26		BACT: Routed to the baghouse at all times
AA-049	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.24	$PM/PM_{10}/PM_{2.5}$	BACT: Routed to Bin Vent at all times
		3.25		BACT: Operational Requirement
AA-050	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.24	$PM/PM_{10}/PM_{2.5}$	BACT: Routed to Bin Vent at all times
		3.25		BACT: Operational Requirement
AA-051	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.32	$PM/PM_{10}/PM_{2.5}$	BACT: Vented to Cartridge Filter at all times
AA-054	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.33	$PM/PM_{10}/PM_{2.5}$	BACT: Install High Efficiency Drift Eliminators
AA-032 AA-033 AA-034 AA-035 AA-036 AA-037 AA-039 AA-046	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.34	Fuel	Natural gas only
AA-032 AA-033 AA-034 AA-035	40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60.40c(a)	3.35	PM SO_2	Applicability

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
AA-038 AA-039 AA-040	40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) 40 CFR 63.6580, and 63.6585(a) and (c)	3.36	HAP	Applicability
	40 CFR 63.6590(c)(1), Subpart ZZZZ	3.37		Comply with Subpart ZZZZ by complying with NSPS Subpart IIII or JJJJ, as applicable
AA-038 AA-040	40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines 40 CFR 60.4200(a)(2)(i) and (ii)	3.38	NMHC CO NOx PM	Applicability
AA-038	40 CFR 60.4205(b) and 60.4202(f)(2), Subpart IIII	3.39		Purchase a certified engine
AA-040	40 CFR 60.4205(c) and Table 4, Subpart IIII	3.40	NMHC + NOx	4.0 g/kw-hr
			CO	3.5 g/kw-hr
			PM	0.20 g/kw-hr
AA-038 AA-040	40 CFR 60.4206, Subpart IIII	3.41	NMHC CO NOx PM	Comply over the life of the engine
	40 CFR 60.4207(b), Subpart IIII and 40 CFR 80.510(b)	3.42	Fuel	Max sulfur content of diesel fuel ≤15 ppm Min. cetane index of 40 or max aromatic content of 35 volume percent.
	40 CFR 60.4209(a), Subpart IIII	3.43	NMHC CO NOx PM	Install a non-resettable hour meter
	40 CFR 60.4211(a), Subpart IIII	3.44		Certified engine requirements
	40 CFR 60.4211(c), Subpart IIII	3.45		Purchase a certified engine
	40 CFR 60.4211(f), Subpart IIII	3.46		Operating requirements
AA-039	40 CFR 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines 40 CFR 60.4230(a)(4)(iv)	3.47	HC + NOx CO	Applicability

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
	40 CFR 60.4233(e) and Table 1, Subpart JJJJ	3.48	NOx	10 g/hp-hr
			CO	387 g/hp-hr
	40 CFR 60.4234, Subpart JJJJ	3.49	HC + NOx CO	Comply over the life of the engine
	40 CFR 60.4237(c), Subpart JJJJ	3.50		Install a non-resettable hour meter
	40 CFR 60.4243(a)(1), Subpart JJJJ	3.51		Certified engine requirements
	40 CFR 60.4243(d), Subpart JJJJ	3.52		Operating requirements

3.1 For the Entire Facility, except as otherwise specified or limited herein, the permittee shall not cause, permit or allow the emission of smoke from any 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) and (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.)

3.2 For the Entire Facility, 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 Condition 3.1. This shall not apply to vision obscuration caused by uncombined water droplets.

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

3.3 For the Entire Facility, 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).)

3.4 For Emission Points AA-032, AA-033, AA-034, AA-035, and AA-046, emissions of particulate matter from fossil fuel burning installations 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).)

3.5 For Emission Points AA-032, AA-033, AA-034, AA-035, and AA-046, the maximum discharge of sulfur oxides from any fuel burning installation 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).)

3.6 For Emission Points AA-036, AA-037, AA-038, AA-039, and AA-040, 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).)

3.7 For Emission Point AA-016, the permittee shall not discharge or cause the discharge of Particulate Matter ($PM/PM_{10}/PM_{2.5}$) in excess of 0.61 lb/hr as determined on a three (3) hour average and 2.67 tons per year (tpy) as determined on a 12 month rolling total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.8 For Emission Point AA-018, the permittee shall to the extent practicable use preventative and mitigating techniques to control dust. This includes but is not limited to, decreasing the drop height while unloading coal and pitch, decreasing the transport distance whenever possible, and the immediate cleanup of any spillage.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.9 For Emission Point AA-032, the permittee shall equip each coal baker with low NO_x burners that have a guarantee not to exceed 0.08 lb/hr of $PM/PM_{10}/PM_{2.5}$ emissions and 0.53 lb/hr of NOx emissions and the off-gasses from the Coal Baking shall be routed to Emissions Point AA-046 at all times.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.10 For Emission Point AA-032, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions ($CO_2(e)$) in excess of 5,488.85 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.11 For Emission Point AA-033, the permittee shall equip each coal baker with low NO_x burners that have a guarantee not to exceed 0.09 lb/hr of $PM/PM_{10}/PM_{2.5}$ emissions and 0.62 lb/hr of NOx emissions and the off-gasses from the Coal Baking shall be routed to Emissions Point AA-046 at all times.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.12 For Emission Point AA-033, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions ($CO_2(e)$) in excess of 6,457.48 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.13 For Emission Point AA-034, the permittee shall not discharge or cause the discharge of Particulate Matter ($PM/PM_{10}/PM_{2.5}$) in excess of 1.54 lb/hr as determined on a three (3) hour average and 6.75 tpy as determined on a 12 month rolling total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.14 For Emission Point AA-034, the permittee shall not discharge or cause the discharge of Nitrogen Oxides (NOx) in excess of 4.19 lb/hr as determined on a three (3) hour average and 18.35 tpy as determined on a 12 month rolling total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.15 For Emission Point AA-034, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions ($CO_2(e)$) in excess of 29,724.89 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.16 For Emission Points AA-034 and AA-035, emissions shall be routed to the control devices at all times (thermal oxidizer and wet scrubber).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.17 For Emission Point AA-035, the permittee shall not discharge or cause the discharge of Particulate Matter ($PM/PM_{10}/PM_{2.5}$) in excess of 1.54 lb/hr as determined on a three (3) hour average and 6.75 tpy as determined on a 12 month rolling total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.18 For Emission Point AA-035, the permittee shall not discharge or cause the discharge of Nitrogen Oxides (NOx) in excess of 4.19 lb/hr as determined on a three (3) hour average and 18.35 tpy as determined on a 12 month rolling total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.19 For Emission Point AA-035, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions (CO_2(e)) in excess of 29,724.89 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.20 For Emission Point AA-036, the permittee shall install a heater that has a manufacturer guarantee not to exceed 0.004 lb/hr of PM/PM_{10}/$PM_{2.5}$ emissions and 0.06 lb/hr of NO_X emissions.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.21 For Emission Point AA-036, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions (CO_2(e)) in excess of 307.73 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.22 For Emission Point AA-037, the permittee shall install a heater that has a manufacturer guarantee not to exceed 0.04 lb/hr of PM/PM_{10}/$PM_{2.5}$ emissions and 0.49 lb/hr of NO_X emissions. Emissions Point AA-037 shall be operated to the extent practicable to minimize emissions using good combustion practices, which include but are not limited to, good equipment design, optimizing air to fuel ratio, operation and maintenance according to the manufacturer's specifications.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.23 For Emission Point AA-037, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions (CO_2(e)) in excess of 2,564.42 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.24 For Emission Points AA-041, AA-042, AA-043, AA-049, and AA-050, the permittee shall route all emissions to the bin vent for control.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.25 For Emission Points AA-041, AA-042, AA-043, AA-044, AA-045, AA-047, AA-048, AA-049, and AA-050, the emission points shall operate only when the baghouses or bin vents are operating as designed. If the baghouses or bin vents are not functioning properly then the emissions points must be shut down and corrective action taken immediately.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.26 For Emission Points AA-044, AA-045, AA-047, and AA-048, emissions shall be routed to the baghouses at all times.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.27 For Emission Points AA-044 and AA-045, the permittee shall not discharge or cause the discharge of Particulate Matter ($PM/PM_{10}/PM_{2.5}$) in excess of 0.54 lb/hr as determined on a three (3) hour average and 2.37 tpy as determined on a 12 month rolling total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.28 For Emission Point AA-046, the permittee shall not discharge or cause the discharge of Particulate Matter ($PM/PM_{10}/PM_{2.5}$) in excess of 2.76 lb/hr as determined on a three (3) hour average and 12.09 tpy as determined on a 12 month rolling total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.29 For Emission Point AA-046, the permittee shall not discharge or cause the discharge of Nitrogen Oxides (NOx) in excess of 7.46 lb/hr as determined on a three (3) hour average and 32.67 tpy as determined on a 12 month rolling total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.30 For Emission Point AA-046, the permittee shall not discharge or cause the discharge of Greenhouse Gas (GHG) emissions ($CO_2(e)$) in excess of 25,724.89 tpy.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.31 For Emission Point AA-047, the permittee shall not discharge or cause the discharge of Particulate Matter ($PM/PM_{10}/PM_{2.5}$) in excess of 1.45 lb/hr as determined on a three (3) hour average and 6.35 tpy as determined on a 12 month rolling total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit))

3.32 For Emission Point AA-051, the permittee shall route all emissions to the cartridge filter at all times.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.33 For Emission Point AA-054, the permittee shall install high efficiency drift eliminators.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). BACT Limit)

3.34 For Emission Points AA-032, AA-033, AA-034, AA-035, AA-036, AA-037, AA-039 and AA-046, the permittee shall combust natural gas only.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

3.35 For Emission Points AA-032, AA-033, AA-034, and AA-035, the permittee is subject to and shall comply with all applicable requirements of Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Dc) and the General Provisions (40 CFR 60, Subpart A).

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

3.36 For Emission Points AA-038, AA-039, and AA-040, the permittee is subject to and shall comply with all applicable requirements of National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) and the General Provisions (40 CFR 63, Subpart A).

Emission Point AA-038 is a new diesel fired (compression ignition (CI)) emergency generator.

Emission Point AA-039 is a new natural gas fired (spark ignition (SI)) emergency generator.

Emission Point AA-040 is a new diesel fired (CI) emergency firewater pump.

(Ref.: 40 CFR 63.6580, and 63.6585(a) and (c), Subpart ZZZZ)

3.37 For Emission Points AA-038, AA-039, and AA-040, the permittee shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII or Subpart JJJJ. No further requirements apply for these engines under Subpart ZZZZ.

(Ref.: 40 CFR 63.6590(c)(1), Subpart ZZZZ)

3.38 For Emission Points AA-038 and AA-040, the permittee is subject to and shall comply with all applicable requirements of Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines(ICE) (40 CFR 60, Subpart IIII) and the General Provisions (40 CFR 60, Subpart A).

(Ref.: 40 CFR 60.4200(a)(2)(i) and (ii), Subpart IIII)

3.39 For Emission Points AA-038, the permittee shall comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

The permittee shall certify the emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power.

(Ref.: 40 CFR 4205(b) and 60.4202(f)(2), Subpart IIII, BACT Limit)

3.40 For Emission Point AA-040, the permittee shall comply with the emission standards in 40 CFR 60, Subpart IIII for all pollutants

(a) NMHC + NOx – 4.0 g/kw-hr

(b) CO – 3.5 g/kw-hr

(b) PM – 0.20 g/kw-hr

(Ref.: 40 CFR 60.4205(c) and Table 4, Subpart IIII, BACT Limit)

3.41 For Emission Points AA-038 and AA-040, the permittee shall operate and maintain stationary CI ICE over the entire life of the engine.

(Ref.: 40 CFR 60.4206, Subpart IIII)

3.42 For Emission Points AA-038 and AA-040, the permittee shall use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel.

(a) Max sulfur content of diesel fuel ≤ 15 ppm

(b) Min. centane index of 40 or max aromatic content of 35 volume percent.

(Ref.: 40 CFR 4207(b), Subpart IIII and 40 CFR 80.510(b))

3.43 For Emission Points AA-038 and AA-040, the permittee shall install a non-resettable hour meter prior to startup of the engine.

(Ref.: 40 CFR 60.4209(a), Subpart IIII)

3.44 For Emission Points AA-038 and AA-040, the permittee shall comply with the following:

(a) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission related written instructions,

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

(c) Meet the requirements of 40 CFR 89, 94, and/or 1068 as they apply.

(Ref.: 40 CFR 60.4211(a), Subpart IIII)

3.45 For Emission Points AA-038 and AA-040, the permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(c) for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications.

(Ref.: 40 CFR 60.4211(c), Subpart IIII)

3.46 For Emission Points AA-038 and AA-040, the permittee shall operate the emergency stationary ICE according to the requirements in paragraphs (a) through (c). In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (a) through (c), is prohibited. If you do not operate the engine according to

the requirements in paragraphs (a) through (c), the engine will not be considered an emergency engine under Subpart IIII and must meet all requirements for non-emergency engines.

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

(b) The permittee shall operate the emergency stationary ICE for any combination of the purposes specified in the paragraph below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (c) counts as part of the 100 hours per calendar year allowed.

Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that 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 the insurance company associated with the engine. 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(c) Emergency stationary ICE 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 and emergency demand response. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4211(f), Subpart IIII)

3.47 For Emission Point AA-039, the permittee is subject to and shall comply with all applicable requirements of Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines (40 CFR 60, Subpart JJJJ) and the General Provisions (40 CFR 60, Subpart A).

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

3.48 For Emission Point AA-039, the permittee shall comply with the following emissions limitations:

(a) NOx – 10 g/HP-hr

(b) CO – 387 g/HP-hr

Ref.: 40 CFR 60.4233(e) and Table 1, Subpart JJJJ, BACT Limit)

3.49 For Emission Point AA-039, the permittee shall operate and maintain the stationary SI ICE so that it achieves the emission standards in Condition 3.48 over the life of the engine.

(Ref.: 40 CFR 60.4234, Subpart JJJJ)

3.50 For Emission Point AA-039, the permittee shall install a non-resettable hour meter upon startup of the emergency engine.

(Ref.: 40 CFR 60.4237(c), Subpart JJJJ)

3.51 For Emission Point AA-039, the permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4231(c) for the same engine class and maximum engine power. In addition, the permittee shall operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions. The permittee shall also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply. If the permittee adjusts the engine settings according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance.

(Ref.: 40 CFR 60.4243(a)(1), Subpart JJJJ)

3.52 For Emission Point AA-039, the permittee shall operate the emergency stationary ICE according to the following requirements. In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year is prohibited. If the engine is not operated according to the following requirements, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

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

(b) The permittee shall operate your emergency stationary ICE for any combination of the purposes specified in the paragraphs below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (c) counts as part of the 100 hours per calendar year.

Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that 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 the insurance company associated with the engine. The permittee shall 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(c) Emergency stationary ICE 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 and emergency demand response. 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 an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4243(d), Subpart JJJJ)

SECTION 4. WORK PRACTICES

THIS SECTION WAS INTENTIONALLY LEFT BLANK SINCE NO WORK PRACTICE STANDARDS APPLY TO THIS PERMIT ACTION

SECTION 5. MONITORING AND RECORDKEEPING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Monitoring/Recordkeeping Requirement
Facility-Wide	11 Miss. Admin. Code Pt. 2, R. 2.9.	5.1	Recordkeeping	Maintain records for a minimum of 5 years.
	40 CFR 98, Subpart A, Table A-1	5.2	GHG	Global Warming Potential
AA-016 AA-034 AA-035 AA-044 AA-045 AA-046 AA-047 AA-048	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.3	$PM/PM_{10}/PM_{2.5}$	Stack Testing within 180 days of startup and biennially using EPA Test Methods 1 - 5, 40 CFR 60, Appendix A
AA-034 AA-035 AA-046	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.4	NOx	Stack Testing within 180 days of startup and biennially using EPA Test Method 7, 40 CFR 60, Appendix A
AA-032 AA-033 AA-034 AA-035 AA-036 AA-037 AA-038 AA-039 AA-040 AA-046	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.5	GHG	Calculate and record $CO_2(e)$ emissions on a 12-month rolling average
AA-032 AA-033 AA-041 AA-042 AA-043 AA-044 AA-045 AA-047 AA-048 AA-049 AA-050 AA-051	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.6	$PM/PM_{10}/PM_{2.5}$	Maintain records of operation without use of baghouse
		5.7		Perform quarterly inspections of baghouses and maintain records of these inspections and an inventory of spare parts.
		5.8		Perform weekly visual emission observations
		5.9		Maintain records of any visible observations
AA-036 AA-037	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.10	Fuel	Maintain records of amount of natural gas combusted
AA-032 AA-033 AA-034 AA-035	40 CFR 60. 48c(g)(1), Subpart Dc	5.11	Fuel	Record and maintain records of the amount of fuel combusted during each calendar day
	40 CFR 60.48c(i), Subpart Dc	5.12		Maintain records for two (2) years

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Monitoring/Recordkeeping Requirement
AA-036 AA-037	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.13	$PM/PM_{10}/PM_{2.5}$ NOx	Work Practice Standards
AA-038 AA-040	40 CFR 60.4214(b), Subpart IIII	5.14	Hours of Operation	Record hours of operation through non-resettable hour meter
AA-039	40 CFR 60.4245(a), Subpart JJJJ	5.15	Maintenance	Recordkeeping
	40 CFR 60.4245(b), Subpart JJJJ	5.16	Hours of Operation	Record hours of operation through non-resettable hour meter
AA-046	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.17	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.
AA-054	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.18	Drift Rate	Maintain records of design and manufacturer-guaranteed maximum drift rate
		5.19	Cooling Water Flow Rate	Install, operate, and maintain instrumentation for continuously monitoring total inlet water flow rate
		5.20	Feed Water TDS	Sample and analyze for TDS monthly
Facility Wide	40 CFR 52.21(r)(6)(iii) and (7)	5.21	Recordkeeping	Projected Actual Emissions Recordkeeping

5.1 The permittee shall retain all required records, monitoring data, supporting information and reports for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings or other data for continuous monitoring instrumentation, and copies of all reports required by this permit. Copies of such records shall be submitted to DEQ as required by Applicable Rules and Regulations or this permit upon request.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.9.)

5.2 For the Entire Facility, for the purposes of showing compliance with any GHG emission limit in this permit, the Global Warming Potential (GWP) factors listed in 40 CFR 98, Subpart A, Table A-1 as of the issuance date of this permit shall be used. The current GWP factors are listed below:

GHG Pollutant	GWP Factor
CO_2	1
CH_4	25
N_2O	298

SF_6	22,800

(Ref.: 40 CFR 98, Subpart A, Table A-1)

5.3 For Emission Points AA-016, AA-034, AA-035, AA-044, AA-045, AA-046, AA-047, and AA-048, the permittee shall demonstrate initial compliance with the $PM/PM_{10}/PM_{2.5}$ emission limits, set forth in Section 3 of this permit, by stack testing in accordance with EPA Test Methods 1 – 5, 40 CFR 60, Appendix A or an EPA and DEQ approved equivalent within 180 days of startup.

All test methods shall be the current 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.

To demonstrate continuous compliance, subsequent stack testing shall be conducted within 25 months of the previous stack test. If a stack test shows that the emissions are at or below 75 percent of the emission limits in Section 3, then the permittee shall stack test once every 5 years not to exceed 60 months from previous stack test. If a stack test shows emissions exceeding 75 percent of the emission limit, the permittee shall perform the next stack test within 25 months of the previous test. The stack testing shall be performed on a biennial basis not to exceed 25 months from the previous until two consecutive stack tests show emissions below 75 percent of the emission limit at which time the stack testing may return to the once per five (5) year testing frequency.

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

5.4 For Emission Points AA-034, AA-035, and AA-046, the permittee shall demonstrate initial compliance with the NOx emission limits, set forth in Section 3 of this permit, by stack testing in accordance with EPA Test Method 7, 40 CFR 60, Appendix A or an EPA and DEQ approved equivalent within 180 days of startup.

All test methods shall be the current 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.

To demonstrate continuous compliance, subsequent stack testing shall be conducted within 25 months of the previous stack test. If a stack test shows that the emissions are at or below 75 percent of the emission limits in Section 3, then the permittee shall stack test once every 5 years not to exceed 60 months from previous stack test. If a stack test shows emissions exceeding 75 percent of the emission limit, the permittee shall perform the next stack test biennially within 25 months of the previous one. The stack testing shall be performed on a biennial basis not to exceed 25 months from the previous one until two consecutive stack tests show emissions below 75 percent of the emission limit at which time the stack testing may return to the once per five (5) year testing frequency.

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

5.5 For Emission Points AA-032, AA-033, AA-034, AA-035, AA-036, AA-037, AA-038, AA-039, AA-040, and AA-046, the permittee shall use the annual heat input and data from 40 CFR 98, Table C-1 to calculate and record CO_2(e) emissions on a 12-month rolling average using the Global Warming Potential factors in Condition 5.2.

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

5.6 For Emission Points AA-032, AA-033, AA-041, AA-042, AA-043, AA-044, AA-045, AA-047, AA-048, AA-049, and AA-050, the permittee shall maintain records of when the equipment is operated without being controlled by the baghouse or bin vent, including the reason why and any corrective actions taken

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

5.7 For Emission Points AA-032, AA-033, AA-041, AA-042, AA-043, AA-044, AA-045, AA-047, AA-048, AA-049, AA-050, and AA-051, the permittee shall perform and record results of quarterly inspections of the baghouses, bin vents, and cartridge filter and shall maintain an inventory of spare parts, including bags, cages, diaphragm, and solenoid valves.

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

5.8 For Emission Points AA-032, AA-033, AA-041, AA-042, AA-043, AA-044, AA-045, AA-047, AA-048, AA-049, AA-050, and AA-51, the permittee shall conduct Method 22 visual emission observations on all exhaust stacks on a weekly basis. Each visual observation shall be conducted for a minimum of six (6) consecutive minutes. Visual observations shall be conducted during daylight hours and during conditions representative of normal operation. If any visible emissions (not including condensed water vapor) are observed, the permittee shall:

(a) Take corrective action that eliminates the visible emissions within 24 hours;

(b) Verify that the air emissions equipment and/or any associated air pollution equipment is operating normally, in accordance with design and standard procedures, and under the same conditions in which compliance was achieved in the past; and

(c) Perform an additional visual observation of six consecutive minutes within three (3) business days.

If the corrective action does not result in “no visible emissions” being observed from the emission point, the permittee shall notify DEQ in writing within five (5) business days and shall have a certified visual emissions observer perform a visible emissions observation using EPA Reference Method 9 within five (5) business days of performing the initial visual observation.

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

5.9 For Emission Points AA-032, AA-033, AA-041, AA-042, AA-043, AA-044, AA-045, AA-047, AA-048, AA-049, AA-050, and AA-51, the permittee shall record and maintain records documenting the following:

(a) Identification of stack and/or Emission Point;

(b) Results of all required visual observations, including Method 9 testing results when applicable

(c) Description of corrective action taken and a statement of verification that the emission unit and the associated pollution control device are operating normally; and

(d) Date and time any visible emissions were abated.

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

5.10 For Emission Points AA-036 and AA-037, the permittee shall record and maintain records of the amount of natural gas combusted on a monthly basis.

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

5.11 For Emission Points AA-032, AA-033, AA-034, and AA-035, the permittee shall record and maintain records of the amount of natural gas combusted during each operating day.

(Ref. 40 CFR 60.48c(g)(1), Subpart Dc)

5.12 For Emission Points AA-032, AA-033, AA-034, and AA-035, all records required under 40 CFR 60, Subpart Dc shall be maintained for a period of two (2) years following the date of such record.

(Ref.: 40 CFR 60.48c(i), Subpart Dc)

5.13 For Emission Points AA-036 and AA-037, the permittee shall perform an initial tune-up within 5 years of startup not to exceed 61 months from initial startup. Subsequent tune-ups shall be performed every 5 years not to exceed 61 months from the previous tune-up. All tune-ups shall be performed in accordance with the following requirements.

(a) Inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown, but must inspect each burner at least once every 36 months);

(b) Inspect the flame pattern, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications;

(c) Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly;

(d) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specification and with any NOx requirement to which the unit is subject;

(e) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made

(measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(f) In lieu of performing the five year tune-up in accordance with (a) through (e) of this condition, the permittee can submit an alternative tune-up procedure based on the manufacturer's recommendation for approval by DEQ at least sixty (60) days prior to the required five year tune-up.

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

5.14 For Emission Point AA-038 and AA-040, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.

(Ref.: 40 CFR 60.4214(b), Subpart IIII)

5.15 For Emission Point AA-039, the permittee shall keep the following records:

(a) Maintenance conducted on the engine,

(b) If the engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emissions standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

(c) If the engine is not a certified engine or is certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.

(d) All notifications submitted to comply with Subpart JJJJ and all documentation supporting any notification.

(Ref.: 40 CFR 60.4245(a), Subpart JJJJ)

5.16 For Emission Point AA-039, the permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. 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 60.4245(b), Subpart JJJJ)

5.17 For Emission Point AA-046, 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^{o}F. Should the temperature fall below 1,400^{o}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. 2.2.B(11).)

5.18 For Emission Point AA-054, the permittee shall maintain records of the design and manufacturer-guaranteed maximum total liquid drift of the cooling tower.

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

5.19 For Emission Point AA-054, the permittee shall install, operate, and maintain instrumentation for continuously monitoring the total inlet water flow rate to the cooling tower in gallons per minute.

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

5.20 For Emission Point AA-054, the permittee shall sample and analyze the feed water to the cooling tower for TDS (Total Dissolved Solids) once per month using a 24-hour composite sample and EPA Method 160.1, or an alternative EPA or ASTM method.

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

5.21 The following conditions apply to the emission points modified in this Construction Permit: Projected Actual Emissions Recordkeeping

(a) For the project modified and affected emission units, the permittee shall calculate and maintain a record of the annual PM, PM_{10}, $PM_{2.5}$, SO_2, CO_2(e), NOx, and CO emissions, in tons per year on a calendar year basis, for a period of ten (10) years following the resumption of regular operations after startup of the change.

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

(b) The permittee shall make the information required to be documented and maintained pursuant to 40 CFR 52.21(r)(6) available for review upon a request for inspection by DEQ or the general public pursuant to the requirements contained in 40 CFR 70.4(b)(3)(viii).

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

SECTION 6. REPORTING REQUIREMENTS

6.1 General Reporting Requirements:

A. 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) working days of the time the deviation began.

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

B. Beginning upon issuance of this permit and lasting until issuance or modification of the applicable operating permit, 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. 2.1.C. Where no monitoring data is required to be reported and/or there are no deviations to report, the report shall contain the appropriate negative declaration. For any air emissions equipment not yet constructed and/or operating the report shall so note and include an estimated date of commencement of construction and/or startup, whichever is applicable.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.9.)

C. Any document required by this permit to be submitted to the DEQ shall contain a certification signed by a responsible official stating 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. 2.2.B(11).)

D. Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(2).)

E. The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(3).)

F. Upon the completion of construction or installation of an approved stationary source or modification, and prior to commencing operation, the applicant shall notify the Permit Board that construction or installation was performed in accordance with the approved plans and specifications on file with the Permit Board.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(1) and (3).)

G. The Permit Board shall be promptly notified in writing of any change in construction from the previously approved plans and specifications or permit. If the Permit Board determines the changes are substantial, it may require the submission of a new application to construct with "as built" plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an "as built" application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(2).)

Specific Reporting Requirements:

Emission Point	Applicable Requirement	Condition Number(s)	Reporting Requirement
AA-016 AA-034 AA-035 AA-044 AA-045 AA-046 AA-047 AA-048	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.2	Submit stack test protocols
		6.3	Submit stack test results within sixty (60) days of conducting respective stack test
AA-032 AA-033 AA-034 AA-035 AA-036 AA-037 AA-038 AA-039 AA-040 AA-046	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.4	Semiannual reports of CO_2(e) emissions
AA-032 AA-033 AA-041 AA-042 AA-043 AA-044 AA-045 AA-047 AA-048 AA-049 AA-050 AA-051	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.5	Semiannual reports of operation without use of baghouse, bin vent, or cartridge filter
AA-032 AA-033 AA-034 AA-035 AA-036 AA-037	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.6	Semiannual reports of natural gas combusted

Emission Point	Applicable Requirement	Condition Number(s)	Reporting Requirement
AA-036 AA-037	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.7	Semiannual reporting for heaters
AA-038 AA-039 AA-040	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.8	Semiannual reports of hours of operation
AA-054	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.9	Cooling tower reporting
Facility Wide	40 CFR 52.21(r)(6)(v)	6.10	Projected Actual Emissions

6.2 For Emission Points AA-016, AA-034, AA-035, AA-044, AA-045, AA-046, AA-047, and AA-048 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 schedules to witness the test(s).

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

6.3 For Emission Points AA-016, AA-034, AA-035, AA-044, AA-045, AA-046, AA-047, and AA-048 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. 2.2.B(11).)

6.4 For Emission Points AA-032, AA-033, AA-034, AA-036, AA-037, AA-038, AA-039, AA-040, and AA-046, the permittee shall submit semiannual reports, in accordance with Condition 6.1.B, of the CO_2(e) emissions as required by Condition 5.5. This report shall include any calculations and supporting documentation.

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

6.5 For Emission Points AA-032, AA-033, AA-041, AA-042, AA-043, AA-044, AA-045, AA-047, AA-048, AA-049, AA-050, and AA-051, the permittee shall submit semiannual reports, in accordance with Condition 6.1.B, that contain the records required by Condition 5.6, 5.7 and 5.9.

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

6.6 For Emission Points AA-032, AA-033. AA-034, AA-035, AA-036, and AA-037, the permittee shall submit semiannual reports, in accordance with Condition 6.1.B, of the amount of natural gas combusted.

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

6.7 For Emission Points AA-036 and AA-037, the permittee shall submit semiannual reports, in accordance with Condition 6.1.B, that contain the records required by Condition 5.13.

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

6.8 For Emission Points AA-038, AA-039, and AA-040, the permittee shall submit semiannual reports, in accordance with Condition 6.1.B, of the hours of operation recorded through the non-resettable hour meter. The report shall detail 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.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.9 For Emission Points AA-046 and AA-054 , the permittee shall submit semiannual reports, in accordance with Condition 6.1.B, of the thermal oxidizer and cooling tower monitoring contained in Conditions 5.17, 5.18, 5.19, and 5.20

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

6.10 The following conditions apply to the emission points modified in this Construction Permit: Projected Actual Emissions Reporting:

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 40 CFR 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 the why the emissions differ from the preconstruction projection).

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