

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

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Rain CII Carbon LLC
863 Old Richburg Road
Purvis, Mississippi
Lamar County

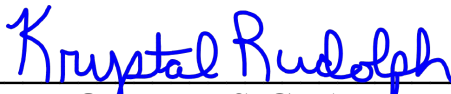
has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. § 7401 - 7671) and the provisions of the Mississippi 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: January 21, 2020

Modified: June 14, 2022

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: December 31, 2024

Permit No.: 1440-00006

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APPENDIX A LIST OF ABBREVIATIONS USED IN THIS PERMIT

APPENDIX B COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

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 Prior to its expiration, this permit may be reopened in accordance with the provisions listed below.

(a) This permit shall be reopened and revised under any of the following circumstances:

- (1) Additional applicable requirements under the Federal Act become applicable to a major Title V source with a remaining permit term of 3 or more years. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended.
- (2) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
- (3) The Permit Board or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.

- (4) The Administrator or the Permit Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (b) Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall only affect those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.
- (c) Reopenings shall not be initiated before a notice of such intent is provided to the Title V source by the DEQ at least 30 days in advance of the date that the permit is to be reopened, except that the Permit Board may provide a shorter time period in the case of an emergency.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.G.)

- 1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(e).)

- 1.6 This permit does not convey any property rights of any sort, or any exclusive privilege.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(d).)

- 1.7 The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(5).)

- 1.8 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.

- (a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions

measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgments where such judgments are derived from process and/or emission data which supports the estimates of maximum actual emission.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).)

- (b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).)

- (c) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D(2).)

- (d) The fee shall be due September 1 of each year. By July 1 of each year, the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the 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.)

- (e) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.C.)

- 1.9 No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(8).)

- 1.10 Any document required by this permit to be submitted to the DEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.2.E.)

- 1.11 The permittee shall allow the DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- (a) enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- (d) as authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

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

- 1.12 Except as otherwise specified or limited herein, the permittee shall have necessary sampling ports and ease of accessibility for any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere.

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

- 1.13 Except as otherwise specified or limited herein, the permittee shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board for air pollution control equipment that was in existence prior to May 8, 1970.

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

- 1.14 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source.

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

- 1.15 Nothing in this permit shall alter or affect the following:
- (a) the provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;
 - (b) the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - (c) the applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act.
 - (d) the ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act.

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

- 1.16 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required pursuant to Section 112(r) of the Act to register such a plan.

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

- 1.17 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.C(2)., R. 6.4.B., and R. 6.2.A(1)(c).)

- 1.18 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:

- (a) the changes are not modifications under any provision of Title I of the Act;
- (b) the changes do not exceed the emissions allowable under this permit;
- (c) the permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such other time frame as provided in other regulations for emergencies) and the notification includes:
 - (1) a brief description of the change(s),
 - (2) the date on which the change will occur,
 - (3) any change in emissions, and
 - (4) any permit term or condition that is no longer applicable as a result of the change;
- (d) the permit shield shall not apply to any Section 502(b)(10) change.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.F(1).)

- 1.19 Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in 11 Miss. Admin. Code Pt. 2, Ch. 3., "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 3.)

- 1.20 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2., "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment", and may require modification of this permit in accordance with Regulations 11 Miss. Admin. Code Pt. 2, Ch. 6., "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act". Modification is defined as "[a]ny physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:

- (a) routine maintenance, repair, and replacement;
- (b) use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
- (c) use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;
- (d) use of an alternative fuel or raw material by a stationary source which:
 - (1) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I, or 40 CFR 51.166; or
 - (2) the source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, or 40 CFR 51.166;
- (e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or 40 CFR 51.166; or
- (f) any change in ownership of the stationary source.

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

1.21 Any change in ownership or operational control must be approved by the Permit Board.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.D(4).)

1.22 This permit is a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit the source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission.

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

1.23 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, 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 airfields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator.

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

1.24 Except as otherwise specified herein, the permittee shall be subject to the following provision with respect to emergencies:

- (a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- (b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.
- (c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:
 - (1) an emergency occurred and that the permittee can identify the cause(s) of the emergency;

- (2) the permitted facility was at the time being properly operated;
 - (3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
 - (4) the permittee submitted notice of the emergency to the DEQ within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- (d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

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

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

- (a) Upsets (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)
- (1) For an upset, the Commission may pursue an enforcement action for noncompliance with an emission standard or other requirement of an applicable rule, regulation, or permit. In determining whether to pursue enforcement action, and/or the appropriate enforcement action to take, the Commission may consider whether the source has demonstrated through properly signed contemporaneous operating logs or other relevant evidence the following:
 - (i) An upset occurred and that the source can identify the cause(s) of the upset;
 - (ii) The source was at the time being properly operated;
 - (iii) During the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standard or other requirement of an applicable rule, regulation, or permit;
 - (iv) That within 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;

- (v) 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 this regulation, 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 Rule 1.2 occurs during startup or shutdown, see the upset requirements above.

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

- 1.26 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M, as adopted by reference in 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.

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

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

| Emission Point | Description |
|----------------|--|
| AA-001 | Coke Calcining Kiln, a countercurrent rotary kiln, equipped with two parallel cyclones for particulate matter removal and a natural gas-fired auxiliary process heater rated at 40 MMBTU/hr for startup. |
| AA-001a | Coke Cooler for quenching calcined coke, with some dust emitted during quenching and subsequent transfer to storage bins. |
| AA-002 | Green Coke Enclosed Storage Tank No. 3 with a capacity of ~ 4,000 tons, equipped with a baghouse |
| AA-003 | Calcined Coke Fixed Roof Storage Tank No. 4 with a capacity of ~ 1,000 tons, equipped with a baghouse |
| AA-004 | Dust Collection System for capturing particulate matter from the transfer of green coke, equipped with a baghouse |
| AA-005 | Railcar loading/unloading |
| AA-006 | Green Coke Enclosed Day Storage Tank No. 1 with a capacity of ~ 400 tons |
| AA-007 | Calcined Coked Enclosed Storage Tank No. 2 with a capacity of ~ 400 tons |
| AA-008 | 35 hp Kiln Auxiliary Drive (KAD) Natural Gas-Fired Emergency Internal Combustion Engine. Spark ignition, 4 stroke, rich burn. Engine manufactured in 1989. |
| AA-009 | 30 hp Water Auxiliary Pump (WAP) Natural Gas-Fired Emergency Internal Combustion Engine. Spark ignition, 4 stroke, rich burn. Engine was manufactured in 1963. |
| AA-010 | Custody Transfer Point 1 – consists of a bucket elevator and a gravity feed conveyor – equipped with a baghouse |
| AA-011 | Custody Transfer Point 2 – consists of a bucket elevator and a gravity feed conveyor – equipped with a baghouse |
| AA-012 | 47 hp Kiln Auxiliary Drive (KAD) Natural Gas-Fired Emergency Internal Combustion Engine. Spark ignition, 4 stroke, rich burn. Engine manufactured in 2021. |

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 Condition 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets.

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

B. Emission Point Specific Emission Limitations & Standards

| Emission Point(s) | Applicable Requirement | Condition Number(s) | Pollutant/Parameter | Limit/Standard |
|--|--|---------------------|----------------------|----------------------------|
| Facility Wide | 11 Miss. Admin. Code Pt. 2, R. 1.3.F(1) | 3.B.1 | PM (filterable only) | $E = 4.1p^{0.67}$ |
| AA-001 (auxiliary process heater only) | 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b) | 3.B.2 | PM (filterable only) | $E = 0.8808 * T^{-0.1667}$ |

| Emission Point(s) | Applicable Requirement | Condition Number(s) | Pollutant/Parameter | Limit/Standard |
|---|---|-------------------------------------|---------------------|---|
| AA-001 (auxiliary process heater only) | 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1) | 3.B.3 | SO ₂ | 4.8 lbs/MMBTU |
| AA-001 | 11 Miss. Admin. Code Pt. 2, R. 1.4.B(1) | 3.B.4 | SO ₂ | 2,000 ppm (volume) |
| AA-001 AA-002 AA-003 AA-004 | 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10), and Title V Operating Permit issued October 14, 2014 | 3.B.5 | PM | Operate and maintain control equipment at all times the unit is operating. |
| AA-008 AA-009 AA-012 | 40 CFR 63, Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines 40 CFR 63.6580, 63.6585(a) and (c), 63.6590(a)(1)(iii) | 3.B.6 | HAP | Applicability |
| AA-008 AA-009 | 40 CFR 63.6603(a) and Table 2d(5), Subpart ZZZZ | 3.B.7 | | a. Change oil and filter every 500 hours. b. Inspect spark plugs every 1,000 hours c. Inspect all hoses and belts every 500 hours |
| AA-010 AA-011 | Federally Enforceable Construction Permit issued February 13, 2019 | 3.B.8 | PM | Baghouse operated at all times when emissions may be vented to it |
| AA-012 | 40 CFR 63.6590(c), Subpart ZZZZ | 3.B.9 | HAP | Comply by meeting requirements of 40 CFR 60, Subpart JJJJ. |
| AA-012 | 40 CFR 60, Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines) 40 CFR 60.4230(a)(4) | 3.B.10 | HC + NOx CO | Applicability |
| | 40 CFR 60.4233(d) and Table 1, Subpart JJJJ | 3.B.11 | NOx + HC | 10 g/HP-hr |
| | | | CO | 387 g/HP-hr |
| | 40 CFR 60.4234, Subpart JJJJ | 3.B.12 | HC + NOx CO | Comply over the life of the engine |
| 40 CFR 60.4237(c), Subpart JJJJ | 3.B.13 | Install a non-resettable hour meter | | |

| Emission Point(s) | Applicable Requirement | Condition Number(s) | Pollutant/Parameter | Limit/Standard |
|-------------------|------------------------------------|---------------------|---------------------|-----------------------------------|
| AA-012 | 40 CFR 60.4243(b)(2), Subpart JJJJ | 3.B.14 | HC + NOx CO | Non-certified engine requirements |
| | 40 CFR 60.4243(d), Subpart JJJJ | 3.B.15 | | Operating requirements |

3.B.1 For the Entire Facility, the permittee shall not cause, permit, or allow the emission of particulate matter (filterable only) in total quantities in any one hour from any manufacturing process, which includes any associated stacks, vents, outlets, or combination thereof, to exceed the amount determined by the relationship

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

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

Conveyor discharge of course solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs.

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

3.B.2 For Emission Point AA-001 (auxiliary process heater only), the maximum permissible emission of ash and/or particulate matter (filterable only) from fossil fuel burning installations greater than 10 million BTU per hour heat input shall not exceed an 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.3 For Emission Point AA-001 (auxiliary process heater only), the maximum discharge of sulfur dioxides 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).)

3.B.4 For Emission Point AA-001, no person shall cause or permit the emission of gas containing sulfur oxides (measured as sulfur dioxide) in excess of 2,000 ppm (volume)

from any process equipment in existence on January 25, 1972.

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

- 3.B.5 For Emission Points AA-001, AA-002, AA-003, and AA-004, the permittee shall operate and maintain control equipment at all times the unit is operating.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). and Title V Operating Permit issued October 14, 2014 and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(1).)

- 3.B.6 For Emission Points AA-008 ,AA-009 and AA-012, the permittee is subject to and shall comply with National Emission Standards for Hazardous Air Pollutants from Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) and the General Provisions (40 CFR 63, Subpart A).

(Ref.: 40 CFR 63.6585, Subpart ZZZZ)

- 3.B.7 For Emission Points AA-008 and AA-009, the permittee shall comply with the requirements in 40 CFR 63, Subpart ZZZZ, Table 2d.

- (a) Change oil and filter every 500 hours of operation or annually, whichever comes first.
- (b) Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- (c) 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(5), Subpart ZZZZ)

- 3.B.8 For Emission Points AA-010 and AA-011, the permittee shall operate the baghouses at all times when emissions may be vented to them. If the baghouses are not fully operational then Emission Points AA-010 and AA-011 shall not be operated until the baghouses are returned to normal operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). and Federally Enforceable Construction Permit issued February 13, 2019)

- 3.B.9 For Emission Point AA-012, the permittee shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart JJJJ.

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

- 3.B.10 For Emission Point AA-012, the permittee is subject to and shall comply with all applicable provisions of Standards of Performance for Stationary Spark Ignition Internal

Combustion Engines (40 CFR 60, Subpart JJJJ) and the General Provisions (40 CFR 60, Subpart A).

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

3.B.11 For Emission Point AA-012, the permittee shall comply with the following emissions limitations:

(a) NO_x + HC – 10 g/HP-hr

(b) CO – 387 g/HP-hr

(Ref.: 40 CFR 60.4233(d) and Table 1, Subpart JJJJ)

3.B.12 For Emission Point AA-012, the permittee shall operate and maintain the stationary SI ICE so that it achieves the emission standards in Condition 3.B.11 over the life of the engine.

(Ref.: 40 CFR 60.4234, Subpart JJJJ)

3.B.13 For Emission Point AA-012, the permittee shall install a non-resettable hour meter upon startup of the emergency engine.

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

3.B.14 For Emission Point AA-012, the permittee shall comply by purchasing an engine certified to the emission standards in Condition 3.B.11. 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. For Emission Point AA-012, the permittee shall comply by purchasing a non-certified engine and demonstrating compliance with the emission standards in Condition 3.B.11 and according to the requirements specified in 40 CFR 60.4244, as applicable.

(Ref.: 40 CFR 60.4243(b)(2), Subpart JJJJ)

3.B.15 For Emission Point AA-012, 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)

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 ₂ | 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.

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

5.A.2 In addition to the recordkeeping specified below, the permittee shall include with all records of required monitoring information the following:

- (a) the date, place as defined in the permit, and time of sampling or measurements;
- (b) the date(s) analyses were performed;
- (c) the company or entity that performed the analyses;
- (d) the analytical techniques or methods used;
- (e) the results of such analyses; and
- (f) the operating conditions existing at the time of sampling or measurement.

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

5.A.3 Except where a longer duration is specified in an applicable requirement, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. 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) working days of the time the deviation began.

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

5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements, if applicable. All test methods shall be those versions or their equivalents approved by the DEQ and the EPA.

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

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

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

B. Specific Monitoring and Recordkeeping Requirements

| Emission Point(s) | Applicable Requirement | Condition Number | Pollutant/Parameter Monitored | Monitoring/Recordkeeping Requirement |
|---|---|------------------|-------------------------------|---|
| AA-001 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). | 5.B.1 | PM | Biennial stack testing |
| | | | SO ₂ | |
| AA-001 | 40 CFR Part 64 | 5.B.2 | PM/PM ₁₀ | Compliance Assurance Monitoring (CAM) requirements. |
| AA-001 AA-001a AA-002 AA-003 AA-004 AA-005 AA-006 AA-007 AA-010 AA-011 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and Federally Enforceable Construction Permit issued February 13, 2019 for Emission Points AA-010 and AA-011 | 5.B.3 | Opacity | Visible Emissions Observations |
| AA-001 AA-002 AA-003 AA-004 AA-010 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and Federally Enforceable Construction Permit issued February 13, 2019 for Emission Points AA-010 and AA- | 5.B.4 | PM | Monitoring of Control Devices |

| Emission Point(s) | Applicable Requirement | Condition Number | Pollutant/Parameter Monitored | Monitoring/Recordkeeping Requirement | |
|---------------------------------|--|---|-------------------------------|---|-------------------------|
| AA-011 | 011 | | | | |
| AA-001a | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). | 5.B.5 | PM | Records of calcined coke produced | |
| AA-008 AA-009 | 40 CFR 63.6605(a), Subpart ZZZZ | 5.B.6 | Monitoring | Continuous Compliance | |
| | 40 CFR 63.6605(b), Subpart ZZZZ | 5.B.7 | | Good air pollution control practices for minimizing emissions | |
| | 40 CFR 63.6625(e), Subpart ZZZZ | 5.B.8 | | Operate and maintain engine according to manufacturer's instructions. | |
| | 40 CFR 63.6625(f), Subpart ZZZZ | 5.B.9 | | Install a non-resettable hour meter. | |
| | 40 CFR 63.6625(h), Subpart ZZZZ | 5.B.10 | | Minimize engine's time spent at idle. | |
| | 40 CFR 63.6625(j), Subpart ZZZZ | 5.B.11 | | Oil analysis program | |
| | 40 CFR 63.6640(a), Subpart ZZZZ | 5.B.12 | | Continuous compliance | |
| | 40 CFR 63.6640(f), Subpart ZZZZ | 5.B.13 | | Emergency Operations | |
| | 40 CFR 63.6655(a), Subpart ZZZZ | 5.B.14 | Recordkeeping | Compliance | |
| | 40 CFR 63.6655(d), Subpart ZZZZ | 5.B.15 | | Continuous compliance | |
| | 40 CFR 63.6655(e), Subpart ZZZZ | 5.B.16 | | Maintenance Records | |
| | 40 CFR 63.6655(f), Subpart ZZZZ | 5.B.17 | | Hours of Operation | |
| | AA-001 AA-002 AA-003 AA-004 AA-010 AA-011 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and Federally Enforceable Construction Permit issued February 13, 2019 for Emission Points AA-010 and AA-011 | 5.B.18 5.B.19 | PM | Monitoring of Baghouses |
| | AA-012 | 40 CFR 60.4243(b)(2)(i), Subpart JJJJ | 5.B.20 | Maintenance | Recordkeeping |
| 40 CFR 60.4245(a), Subpart JJJJ | | 5.B.21 | | | |
| 40 CFR 60.4245(b), Subpart JJJJ | | 5.B.22 | Hours of Operation | Record hours of operation through non-resettable hour meter | |

- 5.B.1 For Emission Point AA-001, the permittee shall demonstrate compliance with the PM and SO₂ emission limitations by stack testing in accordance with EPA test methods 1 -5 and 6, respectively. For the purposes of demonstrating compliance, the permittee shall operate the source at its maximum rated capacity.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to MDEQ. If the initial test protocol is acceptable, subsequent test protocols may be waived if these protocols contain no significant changes. Also, the MDEQ 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.2 For Emission Point AA-001, the permittee is subject to and shall comply with the Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64. The permittee shall comply with the CAM Plan found in Appendix B of this permit. For each excursion, the permittee shall document the event and corrective actions taken in accordance with Condition 5.A.3. If more than three (3) excursions occur within a semi-annual reporting period, a Quality Improvement Plan (QIP) shall be submitted in accordance with the CAM regulations found in 40 CFR 64. The permittee shall also comply with all other applicable requirements of 40 CFR Part 64 including, but not limited to, the monitoring, recordkeeping, and reporting requirements of 40 CFR 64.7, 64.8, and 64.9.

(Ref.: 40 CFR 64)

- 5.B.3 For Emission Point AA-001, AA-001a, AA-002, AA-003, AA-004, AA-005, AA-006, AA-007, AA-010, and AA-011, the permittee shall conduct weekly inspection for visible emissions (VE) in accordance with Method 22 for a period of 3 minutes. The permittee shall maintain a record and/or log noting

- (a) The time and date of the VE observation
- (b) Whether any air emissions (except water vapor) were visible from the emission point
- (c) All emission points from which visible emissions occurred.

If no VE are observed then no further observations are required.

If VE are observed then the permittee shall conduct inspection for visible emissions (VE) in accordance with Method 9 and also record

- (d) The color of the emissions
- (e) Whether the emissions were light or heavy
- (f) The cause of the emissions
- (g) Any corrective action taken including the date and time.

Upon observation of VE, the frequency of observation for that emission point shall become daily until no VE is observed for three consecutive days. After three consecutive days of no VE, the inspection frequency may be reduced to weekly. If no VE are observed for three consecutive months of weekly observations, the frequency may be reduced to monthly. However, if VE are observed during a monthly inspection, the frequency of inspection shall revert to the daily then weekly schedule as specified above.

Upon detecting VE, the permittee shall immediately inspect and take appropriate corrective action. Records of VE inspections and any corrective action taken shall be kept in log form and made available for review upon request.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and Federally Enforceable Construction Permit issued February 13, 2019 for Emission Points AA-010 and AA-011)

- 5.B.4 For Emission Points AA-001, AA-002, AA-003, AA-004, AA-010 and AA-011, during times pollution control devices are not in operation while the equipment the devices provide pollution control for is in operation, the permittee shall monitor and record the following: times and durations that the control devices were not in operation, the reason for them not being in operation, and the corrective action that was taken to bring them back into operation.

The permittee shall maintain on hand at all times sufficient equipment to repair, replace, and/or overhaul the control devices.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and Federally Enforceable Construction Permit issued February 13, 2019 for Emission Points AA-010 and AA-011)

- 5.B.5 For Emission Point AA-001a, the permittee shall keep records of the tons of calcined coke produced each year.

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

- 5.B.6 For Emission Points AA-008 and AA-009, the permittee shall be in compliance with the operating limitations at all times.

(Ref.: 40 CFR 63.6605(a), Subpart ZZZZ)

- 5.B.7 For Emission Points AA-008 and AA-009, the permittee shall operate and maintain the engine in a manner consistent with the safety and good air pollution control practices for minimizing emissions.

(Ref.: 40 CFR 63.6605(b), Subpart ZZZZ)

- 5.B.8 For Emission Points AA-008 and AA-009, the permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(Ref.: 40 CFR 63.6625(e), Subpart ZZZZ)

- 5.B.9 For Emission Points AA-008 and AA-009, the permittee shall install a non-resettable hour meter if one is not already installed.

(Ref.: 40 CFR 63.6625(f), Subpart ZZZZ)

- 5.B.10 For Emission Points AA-008 and AA-009, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d apply.

(Ref.: 40 CFR 63.6625(h), Subpart ZZZZ)

- 5.B.11 For Emission Points AA-008 and AA-009, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 3.B.7. The oil analysis must be performed at the same frequency specified for changing the oil in Condition 3.B.7. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from the Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee shall maintain records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(Ref.: 40 CFR 63.6625(j), Subpart ZZZZ)

5.B.12 For Emission Points AA-008 and AA-009, the permittee shall demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Table 2d that apply according to methods specified in Table 6.

(Ref.: 40 CFR 63.6640(a), Subpart ZZZZ)

5.B.13 For Emission Points AA-008 and AA-009, the permittee shall operate the emergency stationary RICE according to the requirements in (a) through (c) below. In order for the engine to be considered an emergency stationary RICE 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 is prohibited. If you do not operate the engine according to the requirements below, 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 RICE in emergency situations.
- (b) The permittee shall operate the emergency stationary RICE for any combination of the purposes specified below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by (c) of this condition counts as part of the 100 hours per calendar year allowed. Emergency stationary RICE 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 MDEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- (c) Emergency stationary RICE located at area sources of HAP 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 63.6640(f), Subpart ZZZZ)

5.B.14 For Emission Points AA-008 and AA-009, the permittee shall keep the records described

in 40 CFR 63.6655(a)(1) through (a)(5).

- (1) A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).
- (2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
- (3) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
- (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
- (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition 5.B.6, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(Ref.: 40 CFR 63.6655(a), Subpart ZZZZ)

5.B.15 For Emission Points AA-008 and AA-009, the permittee shall keep the records required in 40 CFR 63, Subpart ZZZZ Table 6 to show continuous compliance with each emission or operating limitation that applies.

(Ref.: 40 CFR 63.6655(d) and Item 9 of Table 6, Subpart ZZZZ)

5.B.16 For Emission Points AA-008 and AA-009, the permittee shall maintain records of the maintenance conducted in order to demonstrate that it is operated and maintained according to the maintenance plan.

(Ref.: 40 CFR 63.6655(e), Subpart ZZZZ)

5.B.17 For Emission Points AA-008 and AA-009, the permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

(Ref.: 40 CFR 63.6655(f), Subpart ZZZZ)

5.B.18 For Emission Points AA-001, AA-002, AA-003, AA-004, AA-010 and AA-011, the permittee shall operate the control devices according to the manufacturer's recommended operation specifications.

For Emission Points AA-010 and AA-011, pressure drop shall be monitored and recorded
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for each baghouse on a daily basis and kept in a log for expeditious review. If the pressure drop is outside of the manufacturer's recommendation, then the process shall be shut down and corrective action taken to return the baghouse to normal operating conditions.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and Federally Enforceable Construction Permit issued February 13, 2019 for Emission Points AA-010 and AA-011)

- 5.B.19 For Emission Points AA-001, AA-002, AA-003, AA-004, AA-010 and AA-011, the permittee shall follow the recommended maintenance plan for each control device. The permittee shall also perform monthly inspections for each control device.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and Federally Enforceable Construction Permit issued February 13, 2019 for Emission Points AA-010 and AA-011)

- 5.B.20 For Emission Point AA-012, if you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance by keeping a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required. For Emission Point AA-012, the permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance.

(Ref: 40 CFR 60.4243(b)(2)(i), Subpart JJJJ)

- 5.B.21 For Emission Point AA-012, 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.B.22 For Emission Point AA-012, 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)

C. Specific Reporting Requirements

| Emission Point(s) | Applicable Requirement | Condition Number | Pollutant/Parameter Monitored | Reporting Requirement |
|---|--|------------------|-------------------------------|---|
| AA-001 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). | 5.C.1 | PM | Stack Test Results |
| | | | SO ₂ | |
| | 40 CFR 64.9(a) | 5.C.2 | CAM Reporting | Provide reports containing the information required in 40 CFR 64.9(a). |
| AA-001 AA-001a AA-002 AA-003 AA-004 AA-005 AA-006 AA-007 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). | 5.C.3 | Opacity | Visible Emissions Reporting |
| AA-001a | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). | 5.C.4 | PM | Records of calcined coke produced |
| AA-004 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). | 5.C.5 | PM | Records of visible emissions observations, records of the monthly baghouse inspections and pressure drops for each baghouse |
| AA-010 AA-011 | Federally Enforceable Construction Permit issued February 13, 2019 | | | |
| AA-012 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). | 5.C.6 | Hours of Operation | Reporting |

5.C.1 For Emission Point AA-001, 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)(2).)

5.C.2 For Emission Point AA-001, the permittee shall submit reports in accordance with Condition 5.A.4 of the following information

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- (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 40 CFR 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.

(Ref.: 40 CFR 64.9(a))

- 5.C.3 For Emission Points AA-001, AA-001a, AA-002, AA-003, AA-004, AA-005, AA-006, AA-007, AA-010, and AA-011, the permittee shall submit reports in accordance with Condition 5.A.4 of the visible emissions observations using Method 9 during the reporting period. These reports shall contain the information required by Condition 5.B.3.

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

- 5.C.4 For Emission Point AA-001a, the permittee shall submit reports in accordance with Condition 5.A.4 of the tons of calcined coke produced each year.

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

- 5.C.5 For Emission Points AA-004, AA-010 and AA-011, the permittee shall submit reports in accordance with Condition 5.A.4 of the records of the monthly baghouse inspections and for Emission Points AA-010 and AA-011, the log of the pressure drops for each baghouse.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and Federally Enforceable Construction Permit issued February 13, 2019 for Emission Points AA-010 and AA-011)

- 5.C.6 For Emission Point AA-012, the permittee shall submit semiannual reports, in accordance with Condition 5.A.4, 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. 6.3.A(3)(a)(2).)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 None permitted.

SECTION 7. TITLE VI REQUIREMENTS

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

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

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

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

APPENDIX A

List of Abbreviations Used In this Permit

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

APPENDIX B

40 CFR 64: COMPLIANCE ASSURANCE MONITORING PLAN

CAM PLAN FOR EMISSION POINT AA-001

| | Indicator No. 1 | Indicator No. 2 | Indicator No. 3 |
|--|--|---|---|
| Indicator | Pressure differential, or pressure drop, across the cyclones. | Daily monitoring of cyclone operation. | Biennial stack test. |
| Measurement Approach | A pair of pressure indicators installed upstream and downstream of the cyclones. | Monitoring of the temperature measured between the cyclone and the screw conveyor will be conducted to ensure normal particulate removal. | EPA Test Methods 1-5. |
| Monitoring Methods and Location | Continuous monitoring of pressure differential across cyclones with electronic transmitter and recorder, installed in accordance to manufacturer's specifications. | The temperature measured by the thermocouple at the transition from the cyclone to the screw conveyor will be recorded once every two hours in the facility Temperature/Emissions log. An observation will not be made within 90 minutes of the previous observation. | A stack test will be performed biennially at the calciner stack, per EPA Test Method requirements. (See Condition 5.B.1 of the permit.) |
| Indicator Range | Differential pressure shall be between 1.1 in. H ₂ O and 3.9 in. H ₂ O. | A temperature below 300° F is indicative of an obstruction at the exit of the cyclone and malfunctioning of the cyclone/screw conveyor and will be considered an excursion, except during periods of startup or shutdown. | An exceedance is defined as a particulate matter rate greater than $E = 4.1 * p^{0.67}$, as defined in Condition 3.B.1. |
| Data Collection Frequency | Data is displayed continuously on a digital readout and shall be recorded at least every 15 minutes, in accordance with §64.3(b)(4)(ii). | The results of each observation (once per two hour period) shall be recorded. | Three one-hour tests performed biennially. |
| Averaging Period | 3-hour rolling average. | No averaging period. | The results of the one-hour tests are averaged for a 3-hour averaging period. |
| Recordkeeping | A record of the pressure differential shall be maintained on site. It may be maintained in electronic form. Any excursion from the 3-hour average indicator range shall be noted, including the duration of the excursion and any corrective action taken. | Temperature measurements shall be maintained in log form. The corrective action taken to restore the cyclone removal efficiency by removing any potential obstruction shall be recorded for any temperature measurement below 300° F. | The results of the stack tests shall be recorded in the stack test report required to be submitted per Condition 5.B.1. |
| QA/QC | The pressure indicators shall be maintained and calibrated per the manufacturer's specifications. | Operators shall be trained on proper monitoring of the cyclone exit temperature and on methods of restoring the cyclone and screw conveyor to proper functioning. | The permittee shall comply with the QA/QC requirements of EPA Test Methods 1-5. |