

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

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Entergy Mississippi Inc, Hinds County Plant
3889 Beasley Road
Jackson, Mississippi
Hinds 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: June 26, 2015

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: May 31, 2020

1st Modification Date: June 5, 2017

Permit No.: 1080-00230

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APPENDIX A LIST OF ABBREVIATIONS USED IN THIS PERMIT

APPENDIX B PHASE II ACID RAIN PERMIT

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).) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D(2).)
 - (c) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D.)
 - (d) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.C.)
- 1.9 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 51.166; or
 - (2) the source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166;
 - (e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or 40 CFR 51.166; or
 - (f) any change in ownership of the stationary source.

(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 air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator.

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

- 1.24 Except as otherwise specified herein, the permittee shall be subject to the following provision with respect to emergencies:
- (a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include 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	1732.6 MMBTU/hr natural gas fired combustion turbine with heat recovery steam generator (HRSG) and a dry low NOx burner. This unit is equipped with Selective Catalytic Reduction (SCR) unit for control of NOx emissions and operated when the unit is operating in Mode 6 condition.
AA-002	1732.6 MMBTU/hr natural gas fired combustion turbine with heat recovery steam generator (HRSG) and a dry low NOx burner. This unit is equipped with Selective Catalytic Reduction (SCR) unit for control of NOx emissions and operated when the unit is operating in Mode 6 condition
AA-003	22 MMBTU /hr natural gas fired auxiliary boiler.
AA-004	400 HP fire water pump
AA-005	Nine (9) cell cooling tower
AA-006	587 HP diesel fuel-fired backup generator
AA-007	1.5 MMBTU/hr natural gas fired fuel gas preheater.
AA-008	326.7 MMBTU/hr natural gas fired simple cycle, combustion turbine with a dry low NOx burner
AA-009	762 HP diesel fired emergency generator

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. Facility-Wide Emission Limitations & Standards

- 3.A.1 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (a) & (b).
- (a) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.
 - (b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.A.)
- 3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Paragraph 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.B.)

B. Emission Point Specific Emission Limitations & Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
Entire Facility	11 Miss. Admin. Code Pt. 2, R. 1.3.A. 11 Miss. Admin. Code Pt. 2, R. 1.3.B.	3.A.1 3.A.2	Opacity	40% Opacity (unless otherwise specified or limited)
AA-001 AA-002	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	3.B.1	PM/PM ₁₀ (filterable only)	18 lbs/hr and 79 tons/year
			SO ₂	11 lbs/hr and 48.18 tons/year
			NO _x	<ul style="list-style-type: none"> • 3.5 ppm @ 15% Oxygen on a dry basis, not to exceed 25 lbs/hr (based on a 24-hour rolling average) • 110 tons/year

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AA-001 AA-002	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	3.B.1	CO	<ul style="list-style-type: none"> • 20 ppm @ 15% Oxygen on a dry basis, not to exceed 69 lbs/hr (based on a 24-hour rolling average) • 302.22 tons/year
			Opacity	10%
	40 CFR Part 60, Subpart A and GG (§60.330(a) and (b))	3.B.2	NO _x SO ₂	Applicability
	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	3.B.3	Startup and Shutdown	<ul style="list-style-type: none"> • Startup events shall not exceed 6.0 hours • Shutdown events shall not exceed 2.0 hours
	40 CFR Part 60, Subpart GG (§60.333(b))	3.B.4	Fuel Restriction	<ul style="list-style-type: none"> • Natural gas shall contain less than 0.8% sulfur by weight • Combust natural gas only
AA-003	40 CFR Part 60, Subpart Dc (§60.40c(a))	3.B.5	PM SO ₂	Applicability
	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	3.B.6	Heat Input	87,871 MMBTU/year on a 12-month rolling total
AA-004 AA-006	40 CFR Part 63, Subpart ZZZZ (§63.6585(a) and (b))	3.B.7	HAP	Applicability
	40 CFR Part 63, Subpart ZZZZ (§63.6640(f)(1-4))	3.B.8	Operating Hours	100 hours/year
	40 CFR Part 63, Subpart ZZZZ (§63.6625(f))	3.B.9	HAP	Install non-resettable hour meter
	40 CFR Part 63, Subpart ZZZZ (Table 2d of Subpart ZZZZ)	3.B.10		Required maintenance
	40 CFR Part 63, Subpart ZZZZ (§63.6605(b))	3.B.11		Operate engine and control device(s) (if any) according to manufacturer's specifications
AA-008 AA-009	Moderate Modification via 11 Miss. Admin. Code Pt. 2, R. 2.15.C and Title V Operating Permit Issued June 5, 2017	3.B.12	NO _x PM/PM ₁₀ /PM _{2.5}	Authority to Construct
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (PSD Avoidance)	3.B.13	NO _x	39.9 tons/year

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-008 AA-009	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (<i>PSD Avoidance</i>)	3.B.14	PM (<i>filterable</i>) PM ₁₀ PM _{2.5} (<i>filterable and condensable</i>)	9.0 tons/year
AA-008	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.15	PM/PM ₁₀ (<i>filterable only</i>)	$E = 0.8808 \cdot I^{-0.1667}$
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.B.16	Hours of Operation	2,550 hours/year
	40 CFR Part 60, Subpart KKKK (§60.4305(a))	3.B.17	NO _x SO ₂	Applicability
	40 CFR Part 60, Subpart KKKK (§60.4320(a) and Table 1 to Subpart KKKK)	3.B.18	NO _x	25 ppm @ 15% Oxygen OR 1.2 lb/MWh
	40 CFR Part 60, Subpart KKKK (§60.4330(a)(2))	3.B.19	SO ₂	Burn fuels with total potential sulfur emissions < 0.060 lb/MMBTU
	40 CFR Part 60, Subpart KKKK (§60.4333(a))	3.B.20	Operational Requirement	Operate and maintain in a manner consistent with good air pollution control practices.
AA-009	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.B.21	PM/PM ₁₀ (<i>filterable only</i>)	0.6 lbs/MMBTU
	40 CFR Part 60, Subpart IIII (§60.4200(a)(2))	3.B.22	Exhaust Emissions	Applicability
	40 CFR 60, Subpart IIII (§40 CFR 60.4211(a)(1-3), (c), and (f)(1-3))	3.B.23		Emergency engine definition
	40 CFR Part 60, Subpart IIII (§60.4205(b), §60.4202(a)(2), and §89.112(a))	3.B.24	NMHC+NO _x CO PM	• 4.0 g/kW-hr • 3.5 g/kW-hr • 0.20 g/kW-hr
	40 CFR Part 60, Subpart IIII (§60.4205(b), §60.4202(a)(2), and §89.113(a))	3.B.25	Opacity	• 20% during acceleration; • 15% during lugging; and • 50% during peaks in either acceleration or lugging
	40 CFR Part 60, Subpart IIII (§60.4206)	3.B.26	Emission Standards	Achieve the required emission standards for the entire life of the engine

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-009	40 CFR Part 60, Subpart IIII (§60.4207(b) and §80.510(b)(1-2))	3.B.27	Fuel Requirements	Sulfur content of 15 ppm max., AND Minimum cetane index of 40, OR Maximum aromatic content of 35 volume percent
	40 CFR Part 60, Subpart IIII (§60.4209(a))	3.B.28	Exhaust Emissions	Install a non-resettable hour meter
AA-001 AA-002 AA-008	40 CFR Part 72-75, 77, and 78	3.B.29	NO _x SO ₂ O ₃	Acid Rain Permit and Regulations Requirements
	Cross State Air Pollution Rule (CSAPR) 40 CFR Part 97 Subpart BBBBBB – TR NO _x Ozone Season Trading Program	3.B.30	NO _x	CSAPR Requirements (See Section 9.0)

- 3.B.1 The permittee is authorized to operate Emission Points AA-001 and AA-002 in accordance with the emission limitations specified below:

EMISSION LIMITATIONS

Particulate Matter/ PM ₁₀	18 lbs/hr and 79 tons/year, as determined by EPA Reference Methods 1-5, 40 CFR 60, Appendix A
Sulfur Dioxide	11 lbs/ hr and 48.18 tons/year as determined by EPA reference method 6C, 40 CFR 60, Appendix A.
Nitrogen Oxides	3.5 ppm @ 15% oxygen on a dry basis, not to exceed 25 lbs/hr, both limits are based on a 24-hr rolling average, and 110 tons/year as determined by EPA Reference Method 20, 40 CFR 60, Appendix A.
Carbon Monoxide	20 ppm @ 15% oxygen on a dry basis, not to exceed 69 lbs/hr, both limits are based on a 24-hr rolling average, and 302.22 tons/year as determined by EPA Reference Method 10, 40 CFR 60, Appendix A
Opacity	10% as determined by EPA Reference Method 9, 40 CFR 60, Appendix A.

(Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)

- 3.B.2 Emission Points AA-001 and AA-002 are subject to and shall comply with all applicable requirements of the New Source Performance Standards, as described in 40 CFR 60, Subpart A – General Provisions, and Subpart GG – Standards of Performance for Stationary Gas Turbines. (Ref.: 40 CFR 60.330(a) and (b))
- 3.B.3 For Emission Points AA-001 and AA-002, the permittee shall comply with the emission limitations and monitoring requirements specified in this permit, except during periods

of startups and shutdowns. However, the permittee shall meet the tons/year emission limits to include emissions during periods of startup and shutdown.

Except for upsets, startups, and shutdowns, the permittee shall operate in Mode 6, as indicated by the digital signal sent from the plant control system to the CEMs computer.

A startup event shall not exceed 6.0-hour duration and a shutdown event shall not exceed a 2.0-hour duration. A period of startup is defined as commencing when fuel is first combusted in the combustion turbine, and ending upon initiation of dry low NOx operation as indicated by receipt of a Mode 6 signal from the turbine control system. Shutdown shall be defined as the period beginning when the combustion turbine leaves operational Mode 6 and ending when combustion has ceased. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)

- 3.B.4 For Emission Point AA-001 and AA-002, the permittee shall not burn any fuel which contains sulfur in excess of 0.8 percent by weight. The permittee shall not use any other fuel other than natural gas. (Ref. 40 CFR 60.333(b))
- 3.B.5 Emission Point AA-003 is subject to and shall comply with all applicable requirements of 40 CFR Part 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. (Ref.: 40 CFR 60.40c(a))
- 3.B.6 Emission Point AA-003 is limited to a heat input rate not to exceed 87,871 MMBTU per year measured on a 12-month rolling total. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 3.B.7 Emission Points AA-004 and AA-006 are subject to and shall comply with all applicable requirements of 40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. (Ref.: 40 CFR 63.6585(a) and (b))
- 3.B.8 Emission Points AA-004 and AA-006 are limited to 100 hours of operation per year of readiness and maintenance checks measured on a 12-month rolling total. (Ref.: 40 CFR 63 Subpart ZZZZ)
- 3.B.9 For Emission Points AA-004 and AA-006, the permittee shall install a non-resettable hour meter if one is not already installed. (Ref.: 40 CFR 63.6625(f))
- 3.B.10 For Emission Points AA-004 and AA-006, the permittee shall:
 - (a) Change oil and filter every 500 hours of operation or annually, whichever comes first;
 - (b) Inspect air filter every 1000 hours of operation or annually, whichever comes first, and replace as necessary;
 - (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.(Ref.: Item 4(a-c) of Table 2d of 40 CFR 63 Subpart ZZZZ)
- 3.B.11 For Emission Points AA-004 and AA-006, the permittee must operate and maintain the stationary RICE and after treatment control device (if any) according to the manufacturer's emission related written instructions. (Ref: 40 CFR 63.6625(e)(3))

- 3.B.12 For Emission Points AA-008 and AA-009, the permittee is authorized to begin actual construction of these emission units upon permit issuance. (Ref.: Moderate Modification via 11 Miss. Admin. Code Pt. 2, R. 2.15.C and Title V Operating Permit issued June 5, 2017)
- 3.B.13 For Emission Points AA-008 and AA-009, the permittee shall limit the emissions of Nitrogen Oxides (NO_x) to no more than 39.9 tons per year for each consecutive 12-month period on a rolling basis. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)
- 3.B.14 For Emission Points AA-008 and AA-009, the permittee shall limit the emissions of Particulate Matter (PM), Particulate Matter with a diameter of 10 microns including the filterable and condensable components (PM₁₀), and Particulate Matter with a diameter of 2.5 microns including the filterable and condensable (PM_{2.5}) to no more than 9.0 tons per year for each consecutive 12-month period on a rolling basis. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)
- 3.B.15 For Emission Point AA-008, the permittee shall limit the emission rate of PM and PM₁₀ from the burning of fossil fuels as determined by the following expression:
- $$E = 0.8808 \cdot I^{-0.1667}$$
- where E is the emission rate in pounds per MMBTU/hour and I is the heat input in MMBTU/hour. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).)
- 3.B.16 For Emission Point AA-008, the permittee shall limit the hours of operation of the turbine to no more than 2,550 hours per year for each consecutive 12-month period on a rolling basis. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)
- 3.B.17 Emission Point AA-008 is subject to and shall comply with all applicable requirements of 40 CFR Part 60, Subpart KKKK – Standards of Performance for Stationary Combustion Turbines. (Ref.: 40 CFR 60.4305(a))
- 3.B.18 For Emission Point AA-008, the permittee shall limit the emissions of NO_x to no more than 25 parts per million (ppm) at 15 percent Oxygen OR no more than 1.2 pounds per megawatt-hour (lb/MWh). (Ref.: 40 CFR 60.4320(a) and Table 1 to Subpart KKKK)
- 3.B.19 For Emission Point AA-008, the permittee shall only burn fuels which contain less than 0.060 pounds per MMBTU of total potential sulfur. (Ref.: 40 CFR 60.4330(a)(2))
- 3.B.20 For Emission Point AA-008, the permittee shall operate the affected turbine and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times, including startup, shutdown, and malfunction. (Ref.: 40 CFR 60.4333(a))
- 3.B.21 For Emission Point AA-009, the permittee shall limit the emissions of PM and PM₁₀ to no more than 0.6 lbs/MMBTU. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).)
- 3.B.22 Emission Point AA-009 is subject to and shall comply with all applicable requirements of 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. (Ref.: 40 CFR 60.4200(a)(2)(i))
- 3.B.23 For Emission Point AA-009, the permittee shall install, operate, and maintain the engine according to the manufacturer's emission related written instructions, may change only

those emissions related settings that are permitted by the manufacturer, and the engine must be certified to meet the emissions limitations contained in Conditions 3.B.24 and 3.B.25.

The permittee shall operate the emergency engine in accordance with (a) through (c) below so that the engine may continue to be considered an “emergency engine”. 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 (a) through (c) below is prohibited.

- (a) There is no time limit on the use of the engine in emergency situations.
- (b) The engine may each be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or 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 such a petition is not required if the permittee keeps records indicating that federal, state, or local standards require maintenance and testing of the engine for more than 100 hours per calendar year.
- (c) The engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing contained in (b). 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 electrical grid or otherwise supply power as part of a financial agreement with another entity. If the source does have a financial agreement with another entity, the 50 hours of non-emergency operation may be used as long as ALL the conditions in 40 CFR 60.4211(f)(3)(i)(A through E) are met.

If the affected engine does not operate in accordance with the requirements in (a) through (c) above, then the engine will not be considered an emergency engine and must meet all requirements for a non-emergency engine.

(Ref.: 40 CFR 60.4211(a)(1-3), (c), and (f)(1-3))

- 3.B.24 For Emission Point AA-009, the permittee shall limit the emission rate of non-methane hydrocarbon and nitrogen oxides (NMHC+NO_x) to no more than 4.0 grams per kilowatt-hour (g/kW-hr), the emission rate of carbon monoxide (CO) to no more than 3.5 g/kW-hr, and the emission rate of PM to no more than 0.20 g/kW-hr. The permittee shall operate and maintain the affected engine such that it achieves these emission standards for the entire life of the engine. (Ref.: 40 CFR 60.4205(b), 60.4202(a)(2), and 89.112(a))
- 3.B.25 For Emission Point AA-009, the permittee shall limit the opacity of the exhaust to no more than 20% during the acceleration mode, 15% during the lugging mode, and 50%

during the peaks in either the acceleration or lugging modes. (Ref.: 40 CFR 60.4205(b), 60.4202(a)(2), and 89.113(a))

- 3.B.26 For Emission Point AA-009, the permittee shall operate and maintain the affected engine such that it achieves the required emission standards for the entire life of the engine. (Ref.: 40 CFR 60.4206)
- 3.B.27 For Emission Point AA-009, the permittee shall use diesel fuel that meets the following requirements:
- (a) Sulfur content
- (1) 15 ppm maximum for non-road diesel fuel
- (b) Cetane index or aromatic content
- (1) A minimum cetane index of 40; or
- (2) A maximum aromatic content of 35 volume percent.
- (Ref.: 40 CFR 60.4207(b) and 40 CFR 80.510(b)(1-2))
- 3.B.28 For Emission Point AA-009, the permittee shall install a non-resettable hour meter prior to the startup of the affected engine. (Ref.: 40 CFR 60.4209(a))
- 3.B.29 Emission Points AA-001, AA-002, and AA-008 are subject to the Acid Rain Program Regulations as specified in 40 CFR 72 through 75, 77, and 78. The permittee shall comply with all applicable requirements of said standards as specified in the Acid Rain Permit attached to this permit in Appendix B. (Ref.: 40 CFR 72-75, 77, and 78)
- 3.B.30 For Emission Points AA-001, AA-002, and AA-008, the permittee is subject to the applicable requirements of the Cross State Air Pollution Rule (CSAPR) as set forth in 40 CFR Part 97, Subpart BBBB – Transport Rule (TR) NO_x Ozone Season Trading Program. The permittee must ensure that the subject units have allocations equal to or greater than the emissions during the ozone season period (May 1 – September 30). See Section 9.0 for additional requirements. (Ref.: 40 CFR Part 97, Subpart BBBB)

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
Moderate Modification via 11 Miss. Admin. Code Pt. 2, R. 2.15.C and Title V Operating Permit Issued June 5, 2017	3.C.3	General Requirement	Authority to Construct

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).)
- 3.C.3 For the Insignificant 1,020-gallon diesel storage tank, the permittee is authorized to begin actual construction of these emission units upon permit issuance. (Ref.: Moderate Modification via 11 Miss. Admin. Code Pt. 2, R. 2.15.C and Title V Operating Permit issued June 5, 2017)

D. Work Practice Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
<i>This Section Has Been Intentionally Left Blank</i>				

3.D.1 None

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).)
- 4.3 For Emission Points AA-008, AA-009 and the 1,020-gallon Insignificant Diesel Storage Tank, the permittee shall comply with the permit requirements herein upon certification of construction for each emission point.
- (a) The authority to construct AA-008, AA-009 and the 1,020-gallon Insignificant Diesel Storage Tank will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(1).)
 - (b) AA-008, AA-009 and the 1,020-gallon Insignificant Diesel Storage Tank cannot begin operation until certification of construction by the permittee. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(3).)

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) 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 AA-002	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004 40 CFR Part 60, Subpart GG (§60.334(b))	5.B.1 5.B.2	NO _x CO	Demonstration of compliance with NO _x and CO limits using CEMS
	40 CFR Part 60, Subpart GG (§60.334)	5.B.3		Determination of the calculation methodology for NO _x and CO using CEMS
	40 CFR Part 75	5.B.4		CEMS recordkeeping requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-001 AA-002	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	5.B.5	Startups and Shutdowns	Startup and shutdown monitoring/recordkeeping
	40 CFR Part 60, Subpart GG (§60.334(h))	5.B.6	Fuel Standards	Fuel monitoring and sampling requirements
AA-003	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	5.B.7	Heat Input	Heat input rate recordkeeping
	40 CFR Part 60, Subpart Dc (§60.48c(g))	5.B.8	Fuel Usage	Fuel combustion recordkeeping
AA-004 AA-006	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	5.B.9	Hours of Operation	Hours of operation recordkeeping
Entire Facility	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	5.B.10	General Condition	Recordkeeping requirement
AA-008 AA-009	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.11	NO _x PM/PM ₁₀ /P M _{2.5}	Demonstration of compliance with emission limits
AA-008	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.B.12	Hours of Operation	Hours of operation recordkeeping
	40 CFR Part 60, Subpart A (§60.8)	5.B.13	NO _x CO PM/PM ₁₀ /P M _{2.5}	Demonstration of initial compliance
	40 CFR Part 60, Subpart KKKK (§60.4400)			
	11 Miss. Admin. Code Pt. 2, R. 2.15.C. and R. 2.2.B(11).			
	40 CFR Part 60, Subpart KKKK (§60.4340(b)(1), §60.4335(b)(1-3), and §60.4345(a)-(e)))	5.B.14	NO _x	Demonstration of compliance with NO _x limits using CEMS
	40 CFR Part 60, Subpart KKKK (§60.4350(a)-(g))	5.B.15		Identification of excess emissions
	40 CFR Part 60, Subpart KKKK (§60.4360 and §60.4365(a))	5.B.16	SO ₂	Fuel monitoring requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-009	40 CFR 60, Subpart IIII (§40 CFR 60.4214(b))	5.B.17	Hours of Operation	Record the number of hours of operation for each affected engine

5.B.1 For Emission Points AA-001 and AA-002, the permittee shall demonstrate compliance with NO_x and CO emission limitations using CEMS. Demonstrating compliance with NO_x and CO limits using CEMS data in lieu of EPA Reference Methods is an acceptable practice provided that the permittee meets the guidelines established in EPA's general guidance on "Alternative Testing and Monitoring Procedures for Combustion Turbines Regulated under New Source Performance Standards". This includes use of reference method test data collected during the Relative Accuracy Test Audits (RATA) required under 40 CFR 75. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004; and 40 CFR 60.334(b))

5.B.2 For Emission Points AA-001 and AA-002, the permittee shall install, calibrate, maintain and operate continuous monitoring systems for NO_x (as specified in 40 CFR 60.334, Appendix B and 40 CFR 75), The monitoring systems must comply with all applicable requirements specified in §60.334, §60.13, and Appendix B of 40 CFR 60 and 40 CFR 75. In addition, the permittee must comply with the reporting and recordkeeping requirements specified in 40 CFR 60.7 and 40 CFR 75. As allowed by §60.334(b)(3)(iii), the permittee may use the NO_x CEMS, installed to meet the requirements of 40 CFR Part 75, to meet the requirements of 40 CFR 60.334, except that the missing data substitution methodology provided for at 40 CFR Part 75, Subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in §60.7(c).

For Emission Points AA-001 and AA-002, the permittee shall install, calibrate, maintain and operate continuous monitoring systems for CO (as specified in 40 CFR 60, Appendix B and Appendix F). The CGA, RA Audits shall be conducted according to 40 CFR 60, Appendix B and F. However, the frequency of the audit shall be as specified in 40 CFR 75, Appendix B, Section 2.2. The RATA required under 40 CFR 60, Appendix F, shall be at the frequency specified in 40 CFR 75, Appendix B, Section 2.3.1 and is as follows:

A calendar quarter that does not qualify as QA operating quarter shall be excluded in determining the deadline for the next RATA. No more than eight successive calendar quarters shall elapse after the quarter in which a RATA was last performed without a subsequent RATA having been conducted. If the RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA, then the RATA must be completed within a 720 unit (or stack) operating hour grace period following the end of the eighth successive elapsed calendar quarter. For the diluent monitors, RATA may be performed annually

(i.e., once every four successive QA operating quarters, rather than once every two successive QA operating quarters.

(Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)

- 5.B.3 The NO_x, CO, and O₂ CEM systems shall also be capable of and certified to accurately read/measure NO_x and CO concentrations to comply with the tons/year limit. Within 60 days of the date of issuance, the permittee shall submit a data substitution protocol for the CEMs in case of malfunction to calculate the tons/year emissions for NO_x and CO as specified. Within 90 days of approval of the protocol, the permittee will commence configuring the Data Acquisition Handling System (DAHS) in accordance with the approved protocol. The permittee will use this data to calculate the tons/year for NO_x and CO. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 5.B.4 For Emission Points AA-001 and AA-002, the permittee shall monitor and keep records of emissions in accordance with 40 CFR Part 75. The permittee shall maintain a file on site of all measurements, data, reports, and other information required in 40 CFR Part 75.57 for each affected unit for a period of three (3) years (Ref: 40 CFR Part 75.57)
- 5.B.5 For Emission Points AA-001 and AA-002, the permittee shall monitor and maintain records of the duration of time each emission point engages in periods of both startups and shutdowns. The permittee shall operate the combustion turbines in a manner consistent with good combustion practices, in accordance with the manufacturer's guidelines and procedures to minimize emissions during startup and shutdown. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 5.B.6 For Emission Points AA-001 and AA-002, the permittee is subject to the provisions of 40 CFR Part 60, Subpart GG and thus shall:
- (a) Monitor the total sulfur content of the fuel being fired in the turbines, except as provided in paragraph (h)(3) of §60.334. The sulfur content of the fuel must be determined using total sulfur methods described in §60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processor Association Standard 2377-86 (all of which are incorporated by reference – see §60.17), which measure the major sulfur compounds may be used; and
 - (b) Monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in §60.332). The nitrogen content of the fuel shall be determined using methods described in §60.335(b)(9) or an approved alternative.
 - (c) Notwithstanding the provisions of paragraph (h)(1) of §60.334, the permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in

§60.331(u), regardless of whether an existing custom schedule approved by the administrator for Subpart GG requires such monitoring. The permittee shall use one of the following sources of information to make the required demonstration:

- (i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
- (ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of Appendix D to Part 75 is required.

(Ref.: 40 CFR 60.334(h))

- 5.B.7 For Emission Point AA-003, the permittee shall maintain records detailing the total heat input rate as specified in 3.B.6 and measured on a 12-month rolling total. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 5.B.8 For Emission Point AA-003, the permittee shall record and maintain records of the amounts of fuel combusted during each day. (Ref: 40 CFR 60.48c(g))
- 5.B.9 For Emission Points AA-004 and AA-006, the permittee shall maintain records detailing the hours of operation as specified in 3.B.7 on a monthly basis and on a 12-month rolling total. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 5.B.10 These records shall be kept on site and made available to the Office of Pollution Control personnel upon request. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 5.B.11 For Emission Points AA-008 and AA-009, the permittee shall demonstrate compliance with the emissions limits found in Conditions 3.B.13 and 3.B.14 by maintaining monthly records of the following parameters:
 - (a) The number of hours each unit is in operation on a monthly basis and for each consecutive 12-month period on a rolling basis;
 - (b) The amount and type of fuel used for each unit; and
 - (c) All applicable calculations for each unit demonstrating that the tons per year emissions limits for NO_x, PM/PM₁₀/PM_{2.5}, have been met. The emission calculations from the turbines shall use the permitted short term emission rates or approved emission factors and the recorded hours of operation of the unit; and the vendor guarantee startup and shutdown emission values and the number and duration of startup and shutdown events. The calculation for AA-009, shall utilize the emission limitations and the recorded number of hours.

For Emission Point AA-008, the permittee may use the CEMS required by Subpart KKKK to demonstrate compliance with the NO_x tons per year limit provided the CEM systems is also capable of and certified to accurately read/measure NO_x concentrations to comply with the limit. Within 60 days prior to utilizing the CEMS for the tpy

compliance method, the permittee shall submit a data substitution protocol for the CEMs in case of malfunction to calculate the tons/year emissions for NO_x. Within 90 days of approval of the protocol, the permittee will commence configuring the Data Acquisition Handling System (DAHS) in accordance with the approved protocol. The permittee will use this data to calculate the tons/year for NO_x for the turbine.

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

- 5.B.12 For Emission Point AA-008, the permittee shall monitor and maintain records of the hours in which the turbine was in operation, including the number and duration of time each emission point engages in periods of both startups and shutdowns, on a monthly basis and for each consecutive 12-month period on a rolling basis. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

- 5.B.13 For Emission Point AA-008, the permittee shall demonstrate compliance with the NO_x emission limitations by stack testing in accordance with EPA Reference Methods 20 and the test methods and procedures as listed in 40 CFR 60.440 or an approved equivalent and submittal of a stack test report within 180 days of startup, but no later than 60 days of attaining maximum production rate.

In addition, the permittee shall perform an initial stack test for CO, PM, PM₁₀, and PM_{2.5} in accordance with EPA Reference Methods 10 for CO, 1-5 for PM, and 202 and 201A/ 201 for PM₁₀/PM_{2.5} to verify the emission factors/vendor guarantees used in the permit application. The CO test should be conducted simultaneously with the NO_x test.

A pretest conference at least thirty (30) days prior to the scheduled test date is needed to ensure that all test methods and procedures are acceptable to the Office of Pollution Control. Also, the Office of Pollution Control must be notified prior to the scheduled test date. At least TEN (10) DAYS notice should be given so that an observer may be scheduled to witness the test(s). (Ref. 40 CFR 60.8, 60.4400, 11 Miss. Admin. Code Pt. 2, R. 2.15.C. and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

- 5.B.14 For Emission Point AA-008, the permittee shall demonstrate compliance with the NO_x limitations found in Condition 3.B.18 by installing, certifying, maintaining, and operating a continuous emission monitoring system (CEMS) consisting of a NO_x monitor and a diluent gas (oxygen (O₂)) or carbon dioxide (CO₂) monitor to determine the hourly NO_x emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBTU). If the permittee chooses to demonstrate compliance with the output-based emission standard from Condition 3.B.18 (i.e. 1.2 lb NO_x/MWh), then the permittee shall also install, calibrate, maintain, and operate a fuel flow meter to continuously measure the heat input of the turbine AND a watt meter to continuously measure the gross electrical output of the turbine in megawatt-hours.

For Emission Point AA-008, the permittee shall also comply with the following requirements for the CEMS equipment:

- (a) Each NO_x diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in Appendix B to Part 60, except the 7-day calibration drift is based on unit operating days, not calendar days. With MDEQ approval, Procedure 1 in Appendix F to Part 60 is not required. Alternatively, a NO_x diluent

CEMS that is installed and certified according to Appendix A of 40 CFR Part 75 is acceptable for use under Subpart KKKK. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

- (b) As specified in §60.13(e)(2), during each full unit operating hour, both the NO_x monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_x emission rate for the hour.
- (c) Each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with MDEQ approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of Appendix D to 40 CFR Part 75 are acceptable for use under this subpart.
- (d) Each watt meter shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.
- (e) The permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) above. For the CEMS and fuel flow meters, the permittee may, with MDEQ approval, satisfy the requirements of this paragraph by implementing the QA program and plan described in Section 1 of Appendix B to 40 CFR Part 75.

(Ref.: 40 CFR 60.4340(b)(1), 60.4335(b)(1-3), and 60.4345(a)-(e))

5.B.15 For Emission Point AA-008, the permittee shall identify excess emissions using the data from the CEMS equipment in the following way:

- (a) All CEMS data must be reduced to hourly averages as specified in §60.13(h).
- (b) For each unit operating hour in which a valid hourly average, as described in §60.4345(b), is obtained for both NO_x and diluent monitors, the data acquisition and handling system must calculate and record the hourly NO_x emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 in Appendix A of Part 60. For any hour in which the hourly average O₂ concentration exceeds 19.0 percent O₂ (or the hourly average CO₂ concentration is less than 1.0 percent CO₂), a diluent cap value of 19.0 percent O₂ or 1.0 percent CO₂ (as applicable) may be used in the emission calculations.
- (c) If the permittee has installed and certified a NO_x diluent CEMS to meet the requirements of 40 CFR Part 75, MDEQ can approve that only quality assured data from the CEMS shall be used to identify excess emissions under Subpart KKKK. Periods where the missing data substitution procedures in Subpart D of Part 75 are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under §60.7(c).

- (d) All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages.
- (e) Calculate the hourly average NO_x emission rates, in units of the emission standards under §60.4320, using either ppm for units complying with the concentration limit or the following equation for units complying with the output based standard:

- (1) For simple-cycle operation:

$$E = \frac{(\text{NO}_x)_h * (\text{HI})_h}{P} \quad (\text{Eq. 1})$$

Where:

- E = hourly NO_x emission rate, in lb/MWh,
 - (NO_x)_h = hourly NO_x emission rate, in lb/MMBtu,
 - (HI)_h = hourly heat input rate to the unit, in MMBtu/h, measured using the fuel flowmeter(s), *e.g.*, calculated using Equation D-15a in Appendix D to 40 CFR Part 75, and
 - P = gross energy output of the combustion turbine in MW.
- (f) Use the calculated hourly average emission rates from paragraph (e) above to assess excess emissions on a 4-hour rolling average basis, as described in §60.4380(b)(1).

(Ref.: 40 CFR 60.4350(a-b) and (d-g))

- 5.B.16 For Emission Point AA-008, the permittee must monitor the total sulfur content of the fuel being fired in the turbine. The sulfur content of the fuel must be determined using total sulfur methods described in §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17), which measure the major sulfur compounds, may be used.

The permittee may be exempted from monitoring the total sulfur content of the fuel if the permittee can demonstrate that the fuel does not exceed potential sulfur emissions of 26 ng SO₂/J (0.060 lb SO₂/MMBtu). The permittee may demonstrate this by providing the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for purchased natural gas is 20 grains of sulfur or less per 100 standard cubic feet. (Ref.: 40 CFR 60.4360 and 60.4365(a))

- 5.B.17 For Emission Point AA-009, the permittee shall keep records of the operation of the engine in emergency and non-emergency service that is recorded through the non-resettable hour meter. The permittee shall record the time and reason that the engine is being operated. (Ref.: 40 CFR 60.4214(b))

C. Specific Reporting Requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/Parameter Monitored	Reporting Requirement
AA-001 AA-002	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	5.C.1	NO _x CO	Semiannual reporting requirements
		5.C.2		
		5.C.3	Startup and Shutdown Deviations	
AA-003	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	5.C.4	Heat Input	Semiannual reporting requirements
AA-004 AA-006 AA-008 AA-009	PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004	5.C.5	Hours of Operation	
AA-008	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.C.6	Start-ups and Shutdowns	
AA-008 AA-009	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.C.7	NO _x PM/PM ₁₀ /PM _{2.5} GHG	
AA-008	40 CFR Part 60, Subpart KKKK (§60.4375(a), §60.4380(b), and §60.4395)	5.C.8	NO _x	Reporting requirements
AA-008 AA-009	11 Miss. Admin. Code Pt. 2, R. 2.5.C(2).	5.C.9	General Requirements	Submit notification of commencement of construction
	11 Miss. Admin. Code Pt. 2, R. 2.5.C(3).	5.C.10		Submit notification if construction does not begin within eighteen (18) months following issuance of this permit
	11 Miss. Admin. Code Pt. 2, R. 2.5.D(1).	5.C.11		Submit certification of construction notification
	11 Miss. Admin. Code Pt. 2, R. 2.5.D(2).	5.C.12		Submit notification if there are changes from the approved construction plans

- 5.C.1 For Emission Points AA-001 and AA-002, the permittee shall submit semiannual reports summarizing the results of the NO_x and CO emission rates in tons/year based on a 365-day rolling total. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 5.C.2 For Emission Points AA-001 and AA-002, the permittee shall submit semiannual NO_x and CO excess emission and monitoring system report to the MDEQ identifying any excess emissions (for both lb/hr and ppm number) and monitor downtime that occurred during that period. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 5.C.3 For Emission Points AA-001 and AA-002, the permittee shall submit the startup and shutdown duration time deviations and the total startup and shutdown percent deviations during the reporting period. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 5.C.4 For Emission Point AA-003, the permittee shall submit semiannual reports showing the total heat input in MMBTU on a monthly basis and on a 12-month rolling total. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 5.C.5 For Emission Points AA-004, AA-006, AA-008, and AA-009, the permittee shall submit semiannual reports showing the number of hours the emission points were operated on a monthly basis and on a 12-month rolling total. (Ref.: PSD Construction Permit issued January 7, 2000 and Modified on November 7, 2001 and May 13, 2004)
- 5.C.6 For Emission Point AA-008, the permittee shall submit a semiannual report showing the total number of start-ups and shutdowns which occurred during the previous six-month period. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)
- 5.C.7 For Emission Points AA-008 and AA-009, the permittee shall submit semiannual reports showing the monthly and 12-month rolling NO_x, PM, PM₁₀ and PM_{2.5} emissions. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)
- 5.C.8 For Emission Point AA-008, the permittee shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction. periods of excess emissions and monitor downtime that must be reported are defined as follows:
 - (a) An excess emission is any unit operating period in which the 4-hour or 30-day rolling average NO_x emission rate exceeds the applicable emission limit in §60.4320. For the purposes of Subpart KKKK, a “4-hour rolling average NO_x emission rate” is the arithmetic average of the average NO_x emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three-unit operating hour average NO_x emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NO_x emission rate is obtained for at least 3 of the 4 hours. For the purposes of Subpart KKKK, a “30-day rolling average NO_x emission rate” is the arithmetic average of all hourly NO_x emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the twenty-

nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_x emissions rates for the preceding 30 unit operating days if a valid NO_x emission rate is obtained for at least 75 percent of all operating hours.

- (b) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_x concentration, CO₂ or O₂ concentration, fuel flow rate, or megawatts.
- (c) For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

All reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period. (Ref.: 40 CFR 60.4375(a), 60.4380(b), 60.4395 and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

- 5.C.9 For Emission Points AA-008 and AA-009, within fifteen (15) days of beginning actual construction, the permittee must notify the MDEQ in writing that construction has begun. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(2).)
- 5.C.10 For Emission Points AA-008 and AA-009, the permittee must notify the MDEQ 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).)
- 5.C.11 For Emission Points AA-008 and AA-009, upon the completion of construction, the permittee shall notify the MDEQ that construction was performed in accordance with the approved plans and specifications. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(1).)
- 5.C.12 For Emission Points AA-008 and AA-009, the permittee shall promptly notify MDEQ in writing of any change in construction from the previously approved plans and specifications and permit. If the changes are deemed substantial, MDEQ 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).)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 None permitted.

SECTION 7. TITLE VI REQUIREMENTS

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

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

program promulgated pursuant to 40 CFR Part 82, Subpart G – Significant New Alternatives Policy Program. The permittee shall also comply with any use conditions for the acceptable alternative substance.

- 7.6 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart H – Halon Emissions Reduction:
- (a) Any person testing, servicing, maintaining, repairing, or disposing of equipment that contains halons or using such equipment during technician training;
 - (b) Any person disposing of halons;
 - (c) Manufacturers of halon blends; or
 - (d) Organizations that employ technicians who service halon-containing equipment

SECTION 8. ACID RAIN REQUIREMENTS

- 8.1 The permittee shall comply with all requirements of the Phase II Acid Rain Permit attached as Appendix B of this permit. All conditions of the Phase II Acid Rain Permit are effective for the dates specified in the Acid Rain Permit; however, these conditions may be revised by the DEQ during the permitted period.

SECTION 9. CROSS STATE AIR POLLUTION RULE REQUIREMENTS

9.1 Description of Transport Rule (TR) Monitoring Provisions

The TR subject units and the unit-specific monitoring provisions at this source are identified in the following Tables. These units are subject to the requirements for the TR NO_x Ozone Season Trading Program.

Unit ID: Emission Points AA-001, AA-002, and AA-008					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO ₂ monitoring) and 40 CFR part 75, subpart H (for NO _x monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E
NO _x	X				
Heat Input		X			

- 9.2 The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.530 through 97.535. The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable TR trading programs.
- 9.3 The permittee must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website at <http://www.epa.gov/airmarkets/emissions/monitoringplans.html>.
- 9.4 The permittee that wants to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.535. The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.
- 9.5 The permittee that wants to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.530 through 97.534 must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.535. The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on EPA website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.
- 9.6 The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.530 through 97.534, and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B), may be used to add to or change this unit's monitoring system description.
- 9.7 TR NO_x Ozone Season Trading Program Requirements (40 CFR 97.506)
- (a) Designated representative requirements - The permittee shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.513 through 97.518.
 - (b) Emissions monitoring, reporting, and recordkeeping requirements.
 - (1) The permittee, and the designated representative, of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.530 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and

compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

- (2) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of TR NO_x Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO_x Ozone Season emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.530 through 97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.
- (c) NO_x emissions requirements.
- (1) TR NO_x Ozone Season emissions limitation.
 - (i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Ozone Season units at the source.
 - (ii) If total NO_x emissions during a control period in a given year from the TR NO_x Ozone Season units at a TR NO_x Ozone Season source are in excess of the TR NO_x Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A) The owners and operators of the source and each TR NO_x Ozone Season unit at the source shall hold the TR NO_x Ozone Season allowances required for deduction under 40 CFR 97.524(d); and
 - (B) The owners and operators of the source and each TR NO_x Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBB and the Clean Air Act.
 - (2) TR NO_x Ozone Season assurance provisions.
 - (i) If total NO_x emissions during a control period in a given year from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state (and Indian country within the borders of such state) exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common

designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.525(b), of multiplying—

- (A) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state (and Indian country within the borders of such state) for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and
 - (B) The amount by which total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state (and Indian country within the borders of such state) for such control period exceed the state assurance level.
- (ii) The permittee shall hold the TR NO_x Ozone Season allowances required under paragraph 93.7 (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - (iii) Total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state (and Indian country within the borders of such state) during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season trading budget under 40 CFR 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
 - (iv) It shall not be a violation of 40 CFR part 97, subpart BBBBBB or of the Clean Air Act if total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state (and Indian country within the borders of such state) during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state (and Indian country within the borders of such state) during a control period exceeds the common designated representative's assurance level.

- (v) To the extent the permittee fails to hold TR NO_x Ozone Season allowances for a control period in a given year in accordance with paragraphs 9.7(c)(2)(i) through (iii) above,
 - (A) The permittee shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - (B) Each TR NO_x Ozone Season allowance that the permittee fails to hold for such control period in accordance with paragraphs 9.7(c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBBB and the Clean Air Act.
- (3) Compliance periods.
 - (i) A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph 9.7(c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
 - (ii) A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
 - (i) A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraph 9.7(c)(1)(i) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for such control period or a control period in a prior year.
 - (ii) A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraphs 9.7(c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- (5) Allowance Management System requirements. Each TR NO_x Ozone Season allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart BBBBB.
- (6) Limited authorization. A TR NO_x Ozone Season allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

- (i) Such authorization shall only be used in accordance with the TR NO_x Ozone Season Trading Program; and
 - (ii) Notwithstanding any other provision of 40 CFR part 97, subpart BBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- (7) Property right. A TR NO_x Ozone Season allowance does not constitute a property right.
- (d) Title V permit revision requirements.
 - (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_x Ozone Season allowances in accordance with 40 CFR part 97, subpart BBBBB.
 - (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using once permit modification procedures in accordance with 40 CFR 97.506(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).
- (e) Additional recordkeeping and reporting requirements.
 - (1) Unless otherwise provided, the permittee of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - (i) The certificate of representation under 40 CFR 97.516 for the designated representative for the source and each TR NO_x Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.516 changing the designated representative.

- (ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart BBBBB.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_x Ozone Season Trading Program.
 - (2) The designated representative of a TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall make all submissions required under the TR NO_x Ozone Season Trading Program, except as provided in 40 CFR 97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.
- (f) Liability.
- (1) Any provision of the TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season source or the designated representative of a TR NO_x Ozone Season source shall also apply to the permittee of such source and of the TR NO_x Ozone Season units at the source.
 - (2) Any provision of the TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season unit or the designated representative of a TR NO_x Ozone Season unit shall also apply to the permittee of such unit.
- (g) Effect on other authorities - No provision of the TR NO_x Ozone Season Trading Program or exemption under 40 CFR 97.505 shall be construed as exempting or excluding the permittee, and the designated representative, of a TR NO_x Ozone Season source or TR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.
- (h) Effect on units in Indian country. Notwithstanding the provisions of paragraphs (a) through (g) above, paragraphs (a) through (g) shall be deemed not to impose any requirements on any source or unit, or any owner, operator, or designated representative with regards to any source or unit, in Indian country within the borders of the state.

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 PHASE II ACID RAIN PERMIT

Issued to: Entergy of Mississippi Inc., Hinds County Plant
Operated by: Entergy of Mississippi Inc., Hinds County Plant
ORIS Code: 55218
Effective: June 26, 2015 to May 31, 2020 (Modified: June 5, 2017)

Summary of Previous Actions:

This page will be replaced to document new actions each time a new Action is taken by the Miss. Department of Environmental Quality.

1)Draft Permit for public and EPA comment	December 17, 1999
2)Final Permit issued.	February 8, 2000
3)Draft Permit for public comment for renewal	March 26, 2004
4)Final Permit issued.	June 11, 2004
5)Draft permit sent to public notice and EPA review.	April 14, 2009
6)Permit finalized and issued.	June 10, 2009
7)Permit transferred.	December 10, 2012
8)Draft Permit for public notice and EPA review.	May 8, 2015
9)Final Permit issued.	June 26, 2015

Present Action:

1)Title V Modification Draft Permit for public notice and EPA review.	April 27, 2017
2)Final Modified Permit issued.	June 5, 2017

Signature	Date
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PHASE II ACID RAIN PERMIT

Issued to: Entergy of Mississippi Inc., Hinds County Plant
Operated by: Entergy of Mississippi Inc., Hinds County Plant
ORIS code: 55218
Effective: June 26, 2015 to May 31, 2020

ACID RAIN PERMIT CONTENTS:

1. Statement of Basis.
2. SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
3. Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
4. The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

1. STATEMENT OF BASIS:

Statutory and Regulatory Authorities: In accordance with the Mississippi Air and Water Pollution Control Law, specifically Miss. Code Ann. §§ 49-17-1 through 49-17-43, and any subsequent amendments, and Titles IV and V of the Clean Air Act, the Mississippi Department of Environmental Quality issues this permit pursuant to the State of Mississippi Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, Regulation 11 Miss. Admin. Code Pt. 2 Chapter 6, and the State of Mississippi Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act, Regulation 11 Miss. Admin. Code Pt. 2 Chapter 7.

2. SO₂ ALLOWANCE ALLOCATIONS AND NO_x REQUIREMENTS FOR EACH AFFECTED UNIT:

		2015	2016	2017	2018	2019	2020
Unit 1 Unit 2 Unit 3	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR Part 73.	NA	NA	NA	NA	NA	NA
	NO _x limit, Tons per year, Unit 1/Unit 2	NA	NA	NA	NA	NA	NA

3. COMMENTS, NOTES AND JUSTIFICATIONS:

All affected units are natural gas fired units; therefore, the affected units are not subject to the NO_x requirements outlined in 40 CFR Part 76. Additionally, these are new units that were not listed in 40 CFR Part 73, Tables 2, 3 or 4, and have not been allocated any SO₂ allowances.

4. PHASE II PERMIT APPLICATION: Attached