

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

**TO OPERATE AIR EMISSIONS EQUIPMENT**

**THIS CERTIFIES THAT**

Tennessee Valley Authority, TVA, Kemper Combustion Turbine Plant  
1363 Mark Cobb Road  
Dekalb, Mississippi  
Kemper 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:**     MAY 16 2019    

**Effective Date:** As specified herein.

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**



**AUTHORIZED SIGNATURE**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Expires:**     APR 30 2024    

**Permit No.:** 1380-00015

## **TABLE OF CONTENTS**

SECTION 1.	GENERAL CONDITIONS .....	3
SECTION 2.	EMISSION POINTS & POLLUTION CONTROL DEVICES.....	13
SECTION 3.	EMISSION LIMITATIONS & STANDARDS.....	14
SECTION 4.	COMPLIANCE SCHEDULE .....	24
SECTION 5.	MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS ....	25
SECTION 6.	ALTERNATIVE OPERATING SCENARIOS.....	33
SECTION 7.	TITLE VI REQUIREMENTS .....	34
SECTION 8.	ACID RAIN REQUIREMENTS.....	36
SECTION 9.	CROSS-STATE AIR POLLUTION RULE .....	37
<b>APPENDIX A</b>	<b>LIST OF ABBREVIATIONS USED IN THIS PERMIT</b>	
<b>APPENDIX B</b>	<b>LIST OF REGULATIONS REFERENCED IN THIS PERMIT</b>	
<b>APPENDIX C</b>	<b>PHASE II ACID RAIN PERMIT</b>	

## SECTION 1. GENERAL CONDITIONS

- 1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

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

- 1.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

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

- 1.3 This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

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

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

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

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

revised or revoked to assure compliance with the applicable requirements.

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

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

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

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

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

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

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

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

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

- (a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance

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

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

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

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

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

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

- (d) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- 1.14 Compliance with the conditions of this permit shall be deemed compliance with any

applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source.

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

1.15 Nothing in this permit shall alter or affect the following:

- (a) the provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;
- (b) the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- (c) the applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act.
- (d) the ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act.

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

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

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

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

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

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

- (a) the changes are not modifications under any provision of Title I of the Act;
- (b) the changes do not exceed the emissions allowable under this permit;

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

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

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

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

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

- (a) routine maintenance, repair, and replacement;
- (b) use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan



pursuant to the Federal Power Act;

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

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

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

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

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

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

- 1.23 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance. Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet

the following buffer zones.

- (a) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.
- (b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.
- (c) Burning must not occur within 500 yards of commercial airport property, private 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	1,278 MMBTUH (112.7 MW) natural gas/No. 2 fuel oil fired simple-cycle GE Combustion Turbine (CT-1) equipped with NO <sub>x</sub> controls including evaporative inlet fogging, dry low NO <sub>x</sub> burners for firing of natural gas, and water injection for firing of fuel oil.
AA-002	1,278 MMBTUH (112.7 MW) natural gas/No. 2 fuel oil fired simple-cycle GE Combustion Turbine (CT-2) equipped with NO <sub>x</sub> controls including evaporative inlet fogging, dry low NO <sub>x</sub> burners for firing of natural gas, and water injection for firing of fuel oil.
AA-003	1,278 MMBTUH (112.7 MW) natural gas/No. 2 fuel oil fired simple-cycle GE Combustion Turbine (CT-3) equipped with NO <sub>x</sub> controls including evaporative inlet fogging, dry low NO <sub>x</sub> burners for firing of natural gas, and water injection for firing of fuel oil.
AA-004	1,278 MMBTUH (112.7 MW) natural gas/No. 2 fuel oil fired simple-cycle GE Combustion Turbine (CT-4) equipped with NO <sub>x</sub> controls including evaporative inlet fogging, dry low NO <sub>x</sub> burners for firing of natural gas, and water injection for firing of fuel oil.
AA-005	7.78 MMBTUH GTS Energy Gas Heater (GH-1).
AA-006	7.78 MMBTUH GTS Energy Gas Heater (GH-2).
AA-010	327 HP (244 kW or 2.352 MMBTUH) diesel-fired Emergency Fire Pump (2017 John Deere)

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## SECTION 3. EMISSION LIMITATIONS & STANDARDS

### A. Facility-Wide Emission Limitations & Standards

3.A.1 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (a) & (b).

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

(b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour.

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

3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Paragraph 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets.

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

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

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AA-001 AA-002 AA-003 AA-004	40 CFR 72-78  Acid Rain Program Regulations  40 CFR 72.6, Subpart A	3.B.1	NO <sub>x</sub> , SO <sub>2</sub>	Applicability
	40 CFR 60, Subpart GG  Standards of Performance for Stationary Gas Turbines  40 CFR 60.330	3.B.2	SO <sub>2</sub> NO <sub>x</sub>	Applicability
AA-001 AA-002 AA-003 AA-004	PSD Construction Permit issued <u>July 30, 2001</u> , and modified <u>December 10, 2004</u>	3.B.3	Operating Requirements	Definition of startup and shutdown
		3.B.4		Fuel switching requirements
		3.B.5	Operating Period	Definition of a 24-hour operating period
		3.B.6	Fuel Restriction	The permittee shall fire natural gas or No. 2 fuel oil only
		3.B.7	Fuel Oil Sulfur Content	Sulfur content of 0.05% by weight or less
		3.B.8	Fuel Firing Restrictions	Natural gas may be fired during Base and must be fired during Peak Mode Operation. Fuel oil may only be fired during Base Mode Operation
		3.B.9	PM/PM <sub>10</sub> (filterable only)	<u>While firing natural gas</u> 7.35 lbs/hr for each turbine;  <u>While firing fuel oil</u> 15.80 lbs/hr for each turbine;  Total from all four turbines not to exceed 54.40 tons/year in both natural gas and fuel oil firing modes combined
AA-001 AA-002 AA-003 AA-004	PSD Construction Permit issued <u>July 30, 2001</u> , and modified <u>December 10, 2004</u>	3.B.9	SO <sub>2</sub>	<u>While firing natural gas</u> 4.35 lbs/hr for each turbine;  <u>While firing fuel oil</u> 59.0 lbs/hr for each turbine;

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
				Total from all four turbines not to exceed 118.10 tons/year in both natural gas and fuel oil firing modes combined
			NO <sub>x</sub>	<p><u>While firing natural gas</u></p> <p>12 PPM at 15% oxygen on a dry basis, not to exceed 82.40 lbs/hr for each turbine, both limits are based on a 24-hour operating period;</p> <p><u>While firing fuel oil</u></p> <p>42 PPM at 15% oxygen on a dry basis, not to exceed 204 lbs/hr for each turbine, both limits are based on a 24-hour operating period;</p> <p>Total from all four turbines not to exceed 546.0 tons/year in both natural gas and fuel oil firing modes combined</p>
			CO	<p><u>While firing natural gas</u></p> <p>25 PPM at 15% oxygen, not to exceed 64.2 lbs/hr for each turbine, both limits are based on a 24-hour operating period;</p> <p><u>While firing fuel oil</u></p> <p>20 PPM at 15% oxygen, not to exceed 51.60 lbs/hr for each turbine, both limits are based on a 24-hour operating period;</p> <p>Total from all four turbines not to exceed 323.3 tons/year in both natural gas and fuel oil firing modes combined</p>
AA-001 AA-002 AA-003 AA-004	PSD Construction issued <u>July 30, 2001</u> , and modified <u>December 10, 2004</u>	3.B.9	VOC	<p><u>While firing natural gas</u></p> <p>7.0 lbs/hr for each turbine, based on a 24-hour operating period;</p> <p><u>While firing fuel oil</u></p> <p>7.0 lbs/hr for each turbine, based on a 24-hour operating period;</p> <p>Total from all four turbines not to exceed 36.8 tons/year in both natural gas and fuel oil firing modes combined</p>
			Opacity	10%
		3.B.10	Operating Restriction	Total heat input ≤ 12,950,784 MMBTU per year with no more than 4,306,426



Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
				MMBTU heat input per year provided from firing fuel oil, both determined on a 12-month rolling total
		3.B.11	Good Operating Practices	Minimize emissions during startup and shutdown
AA-001 AA-002 AA-003 AA-004	40 CFR 60.332(a)(1) and (b), Subpart GG	3.B.12	NO <sub>x</sub>	STD = 0.0075*(14.4/Y) + F
	40 CFR 60.333(b)	3.B.13	SO <sub>2</sub>	Fuel with sulfur ≤0.8 percent by weight (8,000 ppmw)
AA-001 AA-002 AA-003 AA-004	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.19	PM (filterable only)	$E = 0.8808 * I^{0.1667}$
AA-010	40 CFR 60, Subpart IIII  Standards of Performance for Stationary Compression Ignition Internal Combustion Engines  40 CFR 60.4200(a)(2)(ii), 60.4205(c), 60.4206, 60.4211(a)(1)-(3) and (c), and Table 4 of Subpart IIII	3.B.14	NMHC+NO <sub>x</sub> , PM (filterable only), CO, SO <sub>2</sub>	General Applicability
			NMHC+NO <sub>x</sub>	3.0 g/HP-hr
			PM	0.15 g/HP-hr
			CO	2.6 g/HP-hr
AA-010	40 CFR 60.4207(b), Subpart IIII  and  40 CFR 80.510(b), Subpart I	3.B.17	SO <sub>2</sub>	Maximum sulfur content of 15 ppm
			Diesel Fuel Requirements	Minimum cetane index of 40, or maximum aromatic content of 35 volume percent
	40 CFR 60.4211(f)(1)-(3), Subpart IIII	3.B.15	NMHC+NO <sub>x</sub> , PM (filterable only), CO, SO <sub>2</sub>	Operating requirements
AA-010	40 CFR 63, Subpart ZZZZ  NESHAP for Stationary Reciprocating Internal Combustion Engines  40 CFR 63.6580, 63.6585(a) and (c), and 63.6590(a)(2)(iii) and (c)(1)	3.B.16	HAP	Applicability
AA-010	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.B.20	PM (filterable only)	0.6 lbs/MMBTU

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AA-005 AA-006	PSD Construction issued <u>July 30, 2001</u> , and modified <u>December 10, 2004</u>	3.B.18	Fuel Restriction	≤42,900,000 standard cubic feet of natural gas per year on a 12-month rolling total for the two emission points combined.

3.B.1 The permittee is subject to the Acid Rain Program Regulations as specified in 40 CFR 72-78 and the permittee must comply with all applicable requirements of this standard. The Acid Rain Permit (ORIS code 07960) is attached to this permit in Appendix B.

(Ref.: 40 CFR 72.6, Subpart A)

3.B.2 Emission Points AA-001 through AA-004 are subject to and shall comply with all applicable requirements of the Standards of Performance for Stationary Gas Turbines, 40 CFR 60, Subpart GG.

(Ref.: 40 CFR 60.330, Subpart GG)

3.B.3 For Emission Points AA-001 through AA-004, the short term (lb/hr and ppm) emission limits do not apply during periods of startup and shutdown. However, the permittee shall include emissions during startup and shutdown when determining compliance with the long term (tons/year) emission limits.

Startup shall include both normal startup and return to service after a maintenance outage. Normal startup is defined as the period beginning with initial ignition of fuel in the unit and ending 21 minutes after synchronization of the unit to the grid. Return to service after a maintenance outage is defined as the period beginning with initial ignition of fuel in the unit following a planned or forced maintenance outage and ending 120 minutes after synchronization of the unit to the grid. Shutdown is defined as the 25-minute period immediately prior to cessation of ignition of fuel in the unit.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

3.B.4 For Emission Points AA-001, through AA-004, the short term (lbs/hr and ppm) limits do not apply during periods of fuel switching. However, the permittee shall include emissions during periods of fuel switching when determining compliance with the tons/year emission limits.

For fuel oil to natural gas operations, a fuel switch is defined as the 15-minute period commencing when the water injection system is shut off after a turbine has decreased load to accommodate the fuel switch. For natural gas to fuel oil operations, a fuel switch is defined as the 15-minute period commencing with the actual fuel switch activity.

The permittee shall be limited to no more than four (4) fuel switching events per emission point per day; each daily period begins at midnight and ends at 11:59 pm of the same calendar day.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

- 3.B.5 For Emission Points AA-001 through AA-004, and for the purposes of the emission limitations below, a 24-hour operating period is defined as 24 hours of valid, non-exempted CEM data.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

- 3.B.6 For Emission Points AA-001 through AA-004, the permittee shall fire natural gas or No. 2 fuel oil only.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

- 3.B.7 For Emission Points AA-001 through AA-004, the permittee shall be limited to firing fuel oil with a sulfur content of 0.05% by weight or less.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

- 3.B.8 For Emission Points AA-001 through AA-004, the permittee may fire the units with natural gas during Base and Peak Mode Operation. The permittee may fire the units with fuel oil only during Base Mode Operation.

Peak mode and base mode operation shall be defined according to the manufacturer's specifications.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

- 3.B.9 For Emission Points AA-001 through AA-004, the permittee shall be limited to the short-term (lb/hr and ppmv) and long-term (tons/year) emission limits enumerated in the table above for PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC and Opacity.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004, and 40 CFR 60.332(a), Subpart GG)

- 3.B.10 For Emission Points AA-001 through AA-004, the permittee shall not have a total heat input of more than 12,950,784 MMBTU per year with no more than 4,306,426 MMBTU heat input per year provided using fuel oil operation, both on a 12-month rolling total.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

- 3.B.11 For Emission Points AA-001 through AA-004, as established through the BACT review for good operating practices, the permittee shall operate the combustion turbines in a manner consistent with good air pollution control practices to minimize emissions during startup

and shutdowns. This operation shall occur in accordance with the manufacturer's written instructions or other written instructions developed and maintained by the permittee which shall include review of the operating parameters of the unit during startup or shutdowns as necessary to make adjustments to reduce or eliminate excess emissions.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

- 3.B.12 For Emission Points AA-001 through AA-004, the permittee shall meet the NO<sub>x</sub> emission limit established using the following equation:

$$STD = 0.0075(14.4/Y) + F$$

Where STD is the allowable NO<sub>x</sub> emission concentration (percent by volume on a dry basis at 15 percent oxygen), Y is the manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility (value of Y shall not exceed 14.4 kilojoules per watt hour), and F is the NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in 60.332(a)(4).

(Ref.: 40 CFR 60.332(a)(1) and (b), Subpart GG)

- 3.B.13 For Emission Points AA-001 through AA-004, the permittee shall not burn any fuel which contains total sulfur in excess of 0.8 percent by weight (8,000 ppmw).

(Ref.: 40 CFR 60.333(b), Subpart GG)

- 3.B.14 Emission Point AA-010 is subject to and shall comply with the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart III. The engine is a new certified fire pump engine with a displacement of less than 30 liters/cylinder and, as such, shall meet the following emission standards for the life of the engine:

- a) Non-methane hydrocarbon and nitrogen oxides (NMHC + NO<sub>x</sub>) ≤ 3.0 g/HP-hr
- b) PM ≤ 0.15 g/HP-hr
- c) Carbon monoxide (CO) ≤ 2.6 g/HP-hr

The permittee shall comply with the emission standards above by purchasing, installing, operating, and maintaining an engine certified to meet the emission standards. The permittee shall operate and maintain the engine in accordance with the manufacturer's emission-related written instructions and can only change the emission-related settings that are permitted by the manufacturer.

(Ref.: 40 CFR 60.4200(a)(2)(ii), 60.4205(c), 60.4206, 60.4211(a)(1)-(3), and (c), and Table 4 of Subpart III)

- 3.B.15 For Emission Point AA-010, the engine shall be considered an emergency stationary engine under Subpart III provided the engine only operates in an emergency, during maintenance and testing, and during non-emergency situations for 50 hours per year as described in (c) below. If the permittee does not operate the engine according to the requirements in (a)-(c) below, the engine will not be considered an emergency engine under Subpart III and must meet all requirements for non-emergency engines.
- (a) There is no limit on the use of the engine during an emergency situation.
  - (b) The permittee may operate the engine for maintenance checks and readiness testing for a maximum of 100 hours per calendar year provided the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or insurance company associated with an engine. The permittee may petition the MDEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating the federal, state, or local standards require maintenance testing of an engine beyond 100 hours per calendar year.
  - (c) The emergency engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (b). Except as provided in 60.4211(f)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4211(f)(1)-(3), Subpart III)

- 3.B.16 Emission Point AA-010 is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ.

Emission Point AA-010 is considered a new compression ignition, emergency fire pump, stationary RICE with a site rating of less than 500 brake HP located at an area source of HAP emissions. As such, the permittee shall comply with the requirements of Subpart ZZZZ by meeting the applicable requirements of 40 CFR 60, Subpart III.

(Ref.: 40 CFR 63.6580, 63.6585(a) and (c), and 63.6590(a)(2)(iii) and (c)(1))

- 3.B.17 For Emission Point AA-010, the permittee shall use diesel fuel that meets the following requirements for non-road diesel fuel:
- a) Maximum sulfur content of 15 ppm
  - b) Minimum cetane index of 40 OR maximum aromatic content of 35 volume percent

(Ref.: 40 CFR 60.4207(b), Subpart III and 40 CFR 80.510(b), Subpart I)

3.B.18 For Emission Points AA-005 and AA-006, the permittee shall not burn more than 42,900,000 standard cubic feet of natural gas per year on a 12-month rolling total for the two emission points combined.

(Ref.: PSD Construction Permit issued July 20, 2001, and modified December 10, 2004)

3.B.19 For Emission Points AA-001 through AA-004, the permittee shall not have particulate emissions from fossil fuel burning installations of greater than 10 million BTU per hour heat input that exceeds the emission rate as determined by the relationship:

$$E = 0.8808 * I^{-0.1667}$$

Where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour.

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

3.B.20 For Emission Point AA-010, 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).)

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 (filterable only)	0.6 lbs/MMBTU
11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.C.2	SO <sub>2</sub>	4.8 lbs/MMBTU

3.C.1 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input.

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

3.C.2 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

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



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## SECTION 4. COMPLIANCE SCHEDULE

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

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C(5)(a), (c), & (d).)



## SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

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

5.A.1 The permittee shall install, maintain, and operate equipment and/or institute procedures as necessary to perform the monitoring and recordkeeping specified below.

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

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

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

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

5.A.3 Except where a longer duration is specified in an applicable requirement, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

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

5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31 and January 31 for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with 11 Miss. Admin. Code Pt. 2, R. 6.2.E.

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

- 5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) 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 AA-003 AA-004	40 CFR 75	5.B.1	NO <sub>x</sub> , SO <sub>2</sub>	Monitoring requirement
AA-001 AA-002 AA-003 AA-004	PSD Construction Permit issued July 30, 2001, and modified December 10, 2004  and  11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.2	Operating Requirements	Monitor hours of operation
		5.B.3		Monitor fuel switches
		5.B.4		Monitor total number of hours each unit operated in peak and base modes while firing natural gas
		5.B.5		Monthly records of the total heat input and type of fuel fired on a daily basis and on a 12-month rolling total.
AA-001 AA-002 AA-003 AA-004	PSD Construction Permit issued July 30, 2001, and modified December 10, 2004, and  40 CFR 60.334(h)(3)(i), Subpart GG	5.B.6	SO <sub>2</sub>	Fuel records
	PSD Construction Permit issued July 30, 2001, and modified December 10, 2004,  11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).  40 CFR 60.334(b), Subpart GG	5.B.7	NO <sub>x</sub> and CO	CEMS
AA-001 AA-002 AA-003 AA-004	PSD Construction Permit issued July 30, 2001, and modified December 10, 2004, and  40 CFR 60, Appendices B and F	5.B.8	CO and O <sub>2</sub>	CEMS
AA-001 AA-002 AA-003 AA-004	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.9	VOC	Performance testing, once per permit term
		5.B.10	PM/PM <sub>10</sub>	
		5.B.11	Opacity	Annual VEE
AA-005 AA-006	PSD Construction Permit issued July 30, 2001, and modified December 10, 2004,	5.B.12	Fuel Usage	Monitor and record natural gas fired on a monthly basis and a 12-month rolling total basis for each heater

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-010	40 CFR 60.4209(a) and 60.4214(b), Subpart IIII	5.B.13	NMHC + NO <sub>x</sub> PM (filterable only) CO	Install non-resettable hour meter and record hours of operation

5.B.1 For Emission Points AA-001 through AA-004, the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for NO<sub>x</sub> (as specified in Appendix B of Part 75). The permittee shall monitor and keep records of NO<sub>x</sub> and SO<sub>2</sub> emissions in accordance with 40 CFR 75. The permittee shall maintain a file on site of all measurements, data, reports, and other information required in 75.57 for each affected unit for a period of three (3) years.

(Ref.: 40 CFR 75)

5.B.2 For Emission Points AA-001 through AA-004, the permittee shall keep a record of the duration of all startups or shutdowns of the combustion turbines. These records shall be made available to the MDEQ upon request.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2010, and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.3 For Emission Points AA-001 through AA-004, the permittee shall keep a record of all fuel switches for each combustion turbine. These records shall be made available to the MDEQ upon request.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2010, and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.4 For Emission Points AA-001 through AA-004, the permittee shall keep a monthly record of the total number of hours each unit operated in both the peak mode and base mode while firing natural gas.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2010)

5.B.5 For Emission Points AA-001 through AA-004, the permittee shall keep a monthly record tabulating the total heat input from each combustion turbine during each operating mode and identifying which fuel was fired. Such records shall be kept on a daily basis and shall identify the 12-month rolling total for all units combined.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2010)

5.B.6 For Emission Points AA-001 through AA-004, the permittee shall keep records (purchase records or tariff sheets) that demonstrate the sulfur content of the fuel does not exceed the sulfur content restrictions in Conditions 3.B.7 and 3.B.13.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004, and

40 CFR 60.334(h)(3)(i), Subpart GG)

- 5.B.7 For Emission Points AA-001 through AA-004, the permittee shall demonstrate compliance with the NO<sub>x</sub> and CO emission limitations using a Continuous Emission Monitoring System (CEMS). Demonstrating compliance with the ppm, lb/hr, and tons/year limits using CEMS data in lieu of EPA Reference Methods is an acceptable practice provided 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 the use of reference method test data collected during Relative Accuracy Test Audits (RATA) required per 40 CFR 75.

The permittee shall use missing data obtained by the Data Acquisition Handling System (DAHS) in accordance with the Missing Data Estimation Procedures contained in 40 CFR 75, Appendix C to demonstrate compliance with the tons/year emission limits provided there are operating periods (i.e., malfunction, etc...) when the CEMS is not recording data.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004, 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2), and 40 CFR 60.334(b), Subpart GG)

- 5.B.8 For Emission Points AA-001 through AA-004, the permittee shall install, calibrate, maintain, and operate continuous monitoring systems for CO and O<sub>2</sub> as specified in 40 CFR 60, Appendices B and F. All cylinder gas audits (CGA) and/or Relative Accuracy Test Audits (RATA) shall be conducted according to 40 CFR 60, Appendices B and F. However, the frequency of the audits 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 July 30, 2001, and modified December 10, 2004, and 40 CFR 60, Appendices B and F)

- 5.B.9 For Emission Points AA-001 through AA-004, the permittee shall demonstrate compliance with the VOC emission limits by stack testing once within the life of this permit using EPA Reference Methods 25 from 40 CFR 60, Appendix A. The permittee shall demonstrate compliance by performing a stack test while burning natural gas and while burning fuel oil, if fuel oil is burned for eight (8) consecutive hours during the permit term. All stack testing

shall be performed under normal operating conditions and while operating at or near capacity, defined as within 5% of the maximum rated capacity (100% load). Prior to any test, the permittee shall submit a written test protocol at least thirty (30) days prior to the proposed test date to ensure all test methods and procedures are acceptable to the MDEQ. Once approved, the test protocol will not have to be submitted for subsequent tests provided there are no major changes. The MDEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test.

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

- 5.B.10 For Emission Points AA-001 through AA-004, the permittee shall demonstrate compliance with the PM/PM<sub>10</sub> emission limits by stack testing once within the life of this permit using EPA Methods 1-5 from 40 CFR 60, Appendix A. The permittee shall demonstrate compliance by performing a stack test while burning natural gas and while burning fuel oil, if fuel oil is burned for eight (8) consecutive hours during the permit term. All stack testing shall be performed under normal operating conditions and while operating at or near capacity, defined as within 5% of the maximum rated capacity (100% load). Prior to any test, the permittee shall submit a written test protocol at least thirty (30) days prior to the proposed test date to ensure all test methods and procedures are acceptable to the MDEQ. Once approved, the test protocol will not have to be submitted for subsequent tests provided there are no major changes. The MDEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test.

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

- 5.B.11 For Emission Points AA-001 through AA-004, the permittee shall demonstrate compliance annually with the opacity limit by conducting a Visual Determination using EPA Reference Method 22 from 40 CFR 60, Appendix A. If visible emissions are observed during the annual Method 22 evaluation, the permittee shall conduct a Visible Emissions Evaluation (VEE) per EPA Reference Method 9 from 40 CFR 60, Appendix A within seven (7) days of the Method 22 evaluation to demonstrate compliance with the 10% opacity limit.

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

- 5.B.12 For Emission Points AA-005 and AA-006, the permittee shall monitor and keep records of the amount of natural gas fired in each heater on a monthly and 12-month rolling total basis. These records shall be used to demonstrate compliance with the permitted annual fuel restriction for the two heaters.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

- 5.B.13 For Emission Point AA-010, the permittee shall install a non-resettable hour meter on the engine, if one is not already installed. The permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the hour meter. The permittee shall record the time of operation and the reason the engine was in

operation during that time.

(Ref.: 40 CFR 60.4209(a) and 60.4214(b), Subpart III)

**C. Specific Reporting Requirements**

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/Parameter Monitored	Reporting Requirement
AA-001 AA-002 AA-003 AA-004	PSD Construction Permit issued July 30, 2001, and modified December 10, 2004	5.C.1	NO <sub>x</sub> , CO, SO <sub>2</sub>	Reporting/notification requirements
		5.C.2	NO <sub>x</sub> , SO <sub>2</sub> , VOC, PM/PM <sub>10</sub> , and CO	Semi-annual report
		5.C.3	SO <sub>2</sub>	Semi-annual report
			Fuel Sulfur Content	
	5.C.4	Operating Requirements	Semi-annual report	
	11 Miss. Admin. Code, Pt. 2, R. 6.3.A(3).	5.C.5	VOC, PM/PM <sub>10</sub> , Opacity	Test report results
AA-005 AA-006	PSD Construction Permit issued July 30, 2001, and modified December 10, 2004	5.C.6	Fuel Usage	Submit semi-annual reports showing the combined amount of fuel burned on a monthly basis and a 12-month rolling total basis.

5.C.1 For Emission Points AA-001 through AA-004, the permittee shall comply with the applicable reporting requirements listed in 40 CFR 60, Subpart A, Section 60.7(c) (semi-annual excess emissions/monitor downtime report) and 60.8 (performance test notifications), 40 CFR 60, Subpart GG, Section 60.334(j) (semi-annual excess emissions report) and 40 CFR 75.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

5.C.2 For Emission Points AA-001 through AA-004, the permittee shall submit semi-annual reports in accordance with Condition 5.A.4 that summarize emissions of NO<sub>x</sub>, SO<sub>2</sub>, VOC, PM/PM<sub>10</sub>, and CO in tons/year based on a 12-month rolling total.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

5.C.3 For Emission Points AA-001 through AA-004, the permittee shall include in the semi-annual report required in Condition 5.A.4, a statement that the fuel sulfur content limit is being met.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

- 5.C.4 For Emission Points AA-001 through AA-004, the permittee shall submit semi-annual reports in accordance with Condition 5.A.4 for each unit showing the fuel type, operating mode and hours of operation, fuel switching events, and total heat input for each firing mode on a daily basis and on a 12-month rolling total.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)

- 5.C.5 For Emission Points AA-001 through AA-004, the permittee shall submit the results from the required VOC and PM/PM<sub>10</sub> performance tests within sixty (60) days of completion of the test(s). The results from VEEs shall be included in the semi-annual report addressing the period during which the observation(s) was conducted, as required in Condition 5.A.4.

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

- 5.C.6 For Emission Points AA-005 and AA-006, the permittee shall submit semi-annual reports in accordance with Condition 5.A.4 showing the combined amount of fuel burned on a monthly basis and a 12-month rolling total basis.

(Ref.: PSD Construction Permit issued July 30, 2001, and modified December 10, 2004)



**SECTION 6. ALTERNATIVE OPERATING SCENARIOS**

6.1 None permitted.

## SECTION 7. TITLE VI REQUIREMENTS

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

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

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

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

## SECTION 8. ACID RAIN REQUIREMENTS

For Emission Points AA-001, AA-002, AA-003, and AA-004, the permittee shall comply with all requirements of the Phase II Acid Rain Permit attached in Appendix C of this permit. All conditions of the Phase II Acid Rain Permit are effective from \_\_\_\_\_ through the \_\_\_\_\_ ; however, these conditions may be revised by the MDEQ during the permitting period.

Emission Points AA-001, AA-002, AA-003, and AA-004 are affected units under the Acid Rain Program as specified in 40 CFR Parts 72-78. However, these units are natural gas/#2 fuel oil fired units and are therefore not subject to the NO<sub>x</sub> requirements outlined in 40 CFR Part 76.

(Ref.: Acid Rain Program Regulations, 40 CFR Parts 72-78)

## SECTION 9. CROSS-STATE AIR POLLUTION RULE

### 9.1 Description of Cross-State Air Pollution Rule (CSAPR) Monitoring Provisions

The CSAPR subject units and the unit-specific monitoring provisions at this source are identified in the following Table. These units are subject to the requirements for the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program.

Unit ID: Emission Points AA-001, AA-002, AA-003, and AA-004					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO <sub>2</sub> monitoring) and 40 CFR part 75, subpart H (for NO <sub>x</sub> 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
SO <sub>2</sub>		X			
NO <sub>x</sub>	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 97.830 through 97.835. The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable CSAPR 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 <https://www.epa.gov/airmarkets/monitoring-plans-part-75-sources>.
- 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 97.835. The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at <https://www.epa.gov/airmarkets/part-75-petition-responses>.

- 9.5 The permittee that wants to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.830 through 97.834 must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.835. 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 <https://www.epa.gov/airmarkets/part-75-petition-responses>.
- 9.6 The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.830 through 97.834, 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 CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program Requirements (40 CFR 97.806)
- (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 97.813 through 97.818.
- (b) Emissions monitoring, reporting, and recordkeeping requirements.
- (1) The permittee, and the designated representative, of each CSAPR NO<sub>x</sub> Ozone Season Group 2 source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.830 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.831 (initial monitoring system certification and recertification procedures), 97.832 (monitoring system out-of-control periods), 97.833 (notifications concerning monitoring), 97.834 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.835 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.830 through 97.835 shall be used to calculate allocations of CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances under 40 CFR 97.811(a)(2) and (b) and 97.812 and to determine compliance with the CSAPR NO<sub>x</sub> Ozone Season Group 2 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 97.830 through 97.835 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

- (c) NO<sub>x</sub> emissions requirements.
  - (1) CSAPR NO<sub>x</sub> Ozone Season Group 2 emissions limitation.
    - (i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO<sub>x</sub> Ozone Season Group 2 source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR 97.824(a) in an amount not less than the tons of total NO<sub>x</sub> emissions for such control period from all CSAPR NO<sub>x</sub> Ozone Season Group 2 units at the source.
    - (ii) If total NO<sub>x</sub> emissions during a control period in a given year from the CSAPR NO<sub>x</sub> Ozone Season Group 2 units at a CSAPR NO<sub>x</sub> Ozone Season Group 2 source are in excess of the CSAPR NO<sub>x</sub> Ozone Season Group 2 emissions limitation set forth in paragraph (c)(1)(i) above, then:
      - (A) The owners and operators of the source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source shall hold the CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances required for deduction under 40 CFR 97.824(d); and
      - (B) The owners and operators of the source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 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 EEEEE and the Clean Air Act.
  - (2) CSAPR NO<sub>x</sub> Ozone Season Group 2 assurance provisions.
    - (i) If total NO<sub>x</sub> emissions during a control period in a given year from all CSAPR NO<sub>x</sub> Ozone Season Group 2 units at CSAPR NO<sub>x</sub> Ozone Season Group 2 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<sub>x</sub> 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) CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR 97.825(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 97.825(b), of multiplying—

- (A) The quotient of the amount by which the common designated representative's share of such NO<sub>x</sub> 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<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and
  - (B) The amount by which total NO<sub>x</sub> emissions from all CSAPR NO<sub>x</sub> Ozone Season Group 2 units at CSAPR NO<sub>x</sub> Ozone Season Group 2 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 CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances required under paragraph (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<sub>x</sub> emissions from all CSAPR NO<sub>x</sub> Ozone Season Group 2 units at CSAPR NO<sub>x</sub> Ozone Season Group 2 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<sub>x</sub> emissions exceed the sum, for such control period, of the State NO<sub>x</sub> Ozone Season Group 2 trading budget under 40 CFR 97.810(a) and the state's variability limit under 40 CFR 97.810(b).
  - (iv) It shall not be a violation of 40 CFR part 97, subpart EEEEE or of the Clean Air Act if total NO<sub>x</sub> emissions from all CSAPR NO<sub>x</sub> Ozone Season Group 2 units at CSAPR NO<sub>x</sub> Ozone Season Group 2 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<sub>x</sub> emissions from the CSAPR NO<sub>x</sub> Ozone Season Group 2 units at CSAPR NO<sub>x</sub> Ozone Season Group 2 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 CSAPR NO<sub>x</sub> Ozone Season



Group 2 allowances for a control period in a given year in accordance with paragraphs (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 CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance that the permittee fails to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart EEEEE and the Clean Air Act.

(3) Compliance periods.

- (i) A CSAPR NO<sub>x</sub> Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(1) 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 97.830(b) and for each control period thereafter.
- (ii) A base CSAPR NO<sub>x</sub> Ozone Season Group 2 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 97.830(b) and for each control period thereafter.

(4) Vintage of allowances held for compliance.

- (i) A CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance that was allocated for such control period or a control period in a prior year.
- (ii) A CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a CSAPR NO<sub>x</sub> Ozone Season Group 2 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 CSAPR NO<sub>x</sub> Ozone Season Group 2 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 EEEEE.

- (6) Limited authorization. A CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance is a limited authorization to emit one ton of NO<sub>x</sub> 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 CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program; and
    - (ii) Notwithstanding any other provision of 40 CFR part 97, subpart EEEEE, 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 CSAPR NO<sub>x</sub> Ozone Season Group 2 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 CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances in accordance with 40 CFR part 97, subpart EEEEE.
  - (2) This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.830 through 97.835, 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 CSAPR 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 97.806(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 CSAPR NO<sub>x</sub> Ozone Season Group 2 source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 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 97.816 for the designated representative for the source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 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 97.816 changing the designated representative.
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart EEEEE.
  - (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 CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program.
- (2) The designated representative of a CSAPR NO<sub>x</sub> Ozone Season Group 2 source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source shall make all submissions required under the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program, except as provided in 40 CFR 97.818. 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 CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program that applies to a CSAPR NO<sub>x</sub> Ozone Season Group 2 source or the designated representative of a CSAPR NO<sub>x</sub> Ozone Season Group 2 source shall also apply to the permittee of such source and of the CSAPR NO<sub>x</sub> Ozone Season Group 2 units at the source.
  - (2) Any provision of the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program that applies to a CSAPR NO<sub>x</sub> Ozone Season Group 2 unit or the designated representative of a CSAPR NO<sub>x</sub> Ozone Season Group 2 unit shall also apply to the permittee of such unit.
- (g) Effect on other authorities - No provision of the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program or exemption under 40 CFR 97.805 shall be construed as exempting or excluding the permittee, and the designated representative, of a CSAPR NO<sub>x</sub> Ozone Season Group 2 source or CSAPR NO<sub>x</sub> Ozone Season Group 2 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
NM VOC	Non-Methane Volatile Organic Compounds
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter less than 10 µm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration, 40 CFR 52
SIP	State Implementation Plan
SO <sub>2</sub>	Sulfur Dioxide
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOC	Volatile Organic Compound

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## **APPENDIX B**

### **LIST OF REGULATIONS REFERENCED IN THIS PERMIT**

**The full text of the regulations referenced in this permit may be found on-line at <http://www.deq.state.us> and <http://ecfr.gpoaccess.gov> or the Mississippi Department of Environmental Quality will provide a copy upon request. A list of regulations referenced in this permit is shown below:**

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

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

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

40 CFR 82, Protection of Stratospheric Ozone

40 CFR 60, Subpart GG – Standards of Performance for Stationary Gas Turbines

40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR 63, Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines

40 CFR 72-78 – Acid Rain Program General Provisions

# **APPENDIX C**

## **PHASE II ACID RAIN PERMIT**

## PHASE II ACID RAIN PERMIT

Issued to: Kemper Plant  
Operated by: Tennessee Valley Authority  
ORIS code: 07960  
Effective: **MAY 1 6 2019** to **APR 3 0 2024**

### Summary of Previous Actions:

This page will be replaced to document new actions each time a new action is taken by the MDEQ. These are the permitting actions that have been undertaken:

1) Draft permit for public and EPA comment.	November 2, 2001
2) Permit issuance.	January 2, 2002
3) Draft permit for public and EPA comment for renewal of permit.	May 9, 2005
4) Permit issuance of renewal permit.	July 18, 2005
5) Draft renewal Title V Permit (incorporating Acid Rain Permit) for public and EPA review.	May 10, 2005
6) Permit issuance of renewal permit.	March 22, 2010

### Present Action:

7) Draft permit for public and EPA comment (permit renewal).	March 6, 2019
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Signature

MAY 1 6 2019

\_\_\_\_\_  
Date

Krystal Rudolph, P.E.  
Chief, Environmental Permits Division  
Mississippi Department of Environmental Quality  
P.O. Box 2261  
Jackson, MS 39225-2261  
Telephone: (601) 961-5171 Fax: (601) 961-5742



## PHASE II ACID RAIN PERMIT

Issued to: Kemper Plant  
Operated by: Tennessee Valley Authority  
ORIS code: 7960  
Effective: MAY 16 2019 to APR 30 2024

### ACID RAIN PERMIT CONTENTS:

- 1) Statement of Basis.
  - 2) SO<sub>2</sub> allowances allocated under this permit and NO<sub>x</sub> 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, 11 Miss. Admin. Code Pt. 2, Ch. 6, and the State of Mississippi Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act, 11 Miss. Admin. Code Pt. 2, Ch. 7.

## PHASE II ACID RAIN PERMIT

Issued to: Kemper Plant  
Operated by: Tennessee Valley Authority  
ORIS code: 07960  
Effective: MAY 16 2019 to APR 30 2024

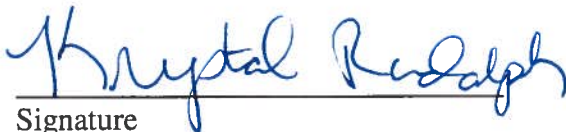
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### Present Action:

7) Draft permit for public and EPA comment (permit renewal).	March 6, 2019
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Signature

MAY 16 2019

\_\_\_\_\_  
Date

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## **PHASE II ACID RAIN PERMIT**

Issued to: Kemper Plant  
Operated by: Tennessee Valley Authority  
ORIS code: 7960  
Effective: MAY 16 2019 to APR 30 2024

### **ACID RAIN PERMIT CONTENTS:**

- 1) Statement of Basis.
  - 2) SO<sub>2</sub> allowances allocated under this permit and NO<sub>x</sub> 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.
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### **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, 11 Miss. Admin. Code Pt. 2, Ch. 6, and the State of Mississippi Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act, 11 Miss. Admin. Code Pt. 2, Ch. 7.

**2) SO<sub>2</sub> ALLOWANCE ALLOCATIONS AND NO<sub>x</sub> REQUIREMENTS FOR EACH AFFECTED UNIT:**

		2019	2020	2021	2022	2023	2024
KCT1	SO <sub>2</sub> allowances, under Table 2 of 40 CFR Part 73.	N/A	N/A	N/A	N/A	N/A	N/A
KCT2							
KCT3							
KCT4	NO <sub>x</sub> limit	N/A					

**3) COMMENTS, NOTES AND JUSTIFICATIONS:**

All affected units are natural gas/fuel oil fired units; therefore, the affected units are not subject to the NO<sub>x</sub> requirements outlined in 40 CFR Part 76. Additionally, these units were not listed in 40 CFR 73, Table 2 and have not been allocated any SO<sub>2</sub> allowances.

**4) PHASE II PERMIT APPLICATION:**

Attached

# **ACID RAIN PERMIT APPLICATION**



Kemper

Facility (Source) Name (from STEP 1):

### **Permit Requirements**

**STEP 3**

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
  - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain Permit.

### **Monitoring Requirements**

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

### **Sulfur Dioxide Requirements**

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

**Sulfur Dioxide Requirements, Cont'd.**

STEP 3, Cont'd.

- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

**Nitrogen Oxides Requirements**

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

**Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
- (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

**Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
- (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;



Kemper

Facility (Source) Name (from STEP 1):

**Recordkeeping and Reporting Requirements, Cont'd.**

STEP 3, Cont'd.

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
  - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

**Liability**

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

**Effect on Other Authorities**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

Kemper  
Facility (Source) Name (from STEP 1):

**Effect on Other Authorities, Conf'd.**

STEP 3, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

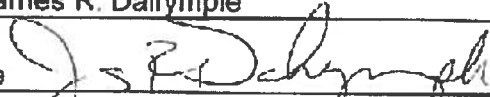
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**Certification**

STEP 4  
Read the  
certification  
statement,  
sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name James R. Dalrymple	
Signature 	Date 8/5/2014

