STATE OF MISSISSIPPI AIR POLLUTION CONTROL TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

TVA Southaven Combined Cycle Plant 2882 State Line Road West Southaven, Mississippi Desoto 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) (i.e., the "Federal Act") 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: _	** * * * * * * * * * * * * * * * * * *
Effective Date:	As specified herein.
MISSIS	SSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD
	AUTHORIZED SIGNATURE
MICCICC	
MISSISS	SIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

12199 PER20240001

Expires:[Date not to exceed 5 years from issuance]

Permit No.: 0680-00095

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SECTION 1. GENERAL CONDITIONS

1.1 The permittee must comply with all conditions of this permit. Any permit non-compliance 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 The 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 following provisions:.
 - (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 three (3) or more years. Such a reopening shall be completed no later than eighteen (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 emissions 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 a permit shall follow the same procedures as apply to initial permit issuance and shall affect only 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 Department of Environmental Quality (MDEQ) at least thirty (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 MDEQ within a reasonable time any information the MDEQ 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 MDEQ copies of records required to be kept by the permittee or, for information claimed to be confidential, the permittee shall furnish such records to MDEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

1.6 The 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 MDEQ an annual fee based on a fee schedule established by the Mississippi Commission on Environmental Quality (i.e., the "Commission"). The fee schedule shall be set each year by order of the Commission in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.
 - (a) A portion of the fee shall be based on the permittee's annual quantity of emissions. The permittee shall elect for "actual emissions" 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.
 - (i) "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.

- (ii) "Allowable emissions" are those emissions limited by this permit as well as those emissions not expressly limited by this permit but otherwise allowed by this permit, as represented in the Title V application.
- (iii) Not withstanding paragraphs (i) and (ii), a minimum annual fee shall be assessed in accordance with the fee schedule established by the Commission when calculating this portion of the fee.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.B(1).)

(b) A portion of the fee shall be based on the complexity of this permit, as determined by the number of air regulations applicable to the permittee on the date of the fee calculation in accordance with the fee schedule established by the Commission. Only air regulations required to be addressed by this permit may be included in the annual fee schedule.

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

(c) By July 1 of each year, the permittee shall submit a completed annual fee reporting form to the MDEQ accompanied by all necessary calculations and supporting information to verify actual emissions. If the annual fee reporting form is not filled out completely and accurately or certified in accordance with Regulation 11 Miss. Admin. Code Pt. 2, R. 6.2.E., "allowable emissions" or other information necessary to determine the appropriate annual fee shall be used in the fee calculation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.B(3)(c).)

(d) If the Commission determines that there is not sufficient information available to the permittee to accurately complete and submit the annual fee reporting form by July 1, but such information becomes available and is submitted to the MDEQ after July 1, the fee calculation and assessment may be altered according to the annual fee schedule. No fee actually paid to the MDEQ shall be refunded due to a change in the fee calculation.

If a fee is recalculated such that the amount assessed for an annual period is reduced and the permittee has already paid all or a portion of the fee, the revised

fee assessment may not be reduced to an amount less than what the permittee has already paid regardless of the results of the recalculation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.B(3)(d).)

(e) The fee shall be due September 1 of each year. However, the permittee may elect a quarterly payment method of four (4) equal payments with the payments due September 1, December 1, March 1 and June 1. The permittee shall notify the MDEQ that the quarterly payment method will be used by September 1.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.E(1).)

(f) If at any time within the year the Commission determines that the information submitted by the permittee is insufficient or incorrect, the MDEQ will notify the permittee of the deficiencies and the adjusted fee schedule. Past due fees as a result of the adjusted fee assessment will be due at the time of the next scheduled quarterly payment.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.E(1)(b).)

(g) If an annual fee is not paid within thirty (30) days after the due date, a penalty of ten (10) percent of the amount due shall at once accrue and be added thereto. If the fee is not paid in full (including any interest and penalty within sixty (60) days of the due date), the Permit Board may revoke the permit upon proper notice and hearing as required by law.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.E(1)(a).)

(h) If the permittee disagrees with the calculation or applicability of an annual 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.D.)

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 MDEQ 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 MDEQ (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 upon satisfying one of the following conditions:
 - (a) Such applicable requirements are included and are specifically identified in the permit; or
 - (b) The Permit Board, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the permittee and the permit includes such determination (or a concise summary thereof).

(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 to register such a plan pursuant to Section 112(r) of the Federal Act.

(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 that is submitted at least six (6) months prior to the date of permit expiration.

If the permittee submits a timely and complete application for permit issuance (including for renewal), the failure to have a Title V permit is not a violation of the applicable 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 MDEQ any additional information identified as being needed to process the application.

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

- 1.18 The permittee is authorized to make changes within their facility without requiring a permit revision (Ref.: Section 502(b)(10) of the Federal Act) if the following criteria are met:
 - (a) The changes are not modifications under any provision of Title I of the Federal 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 [i.e., at least seven (7) days or

such other time frame as provided in other regulations for emergencies] and the notification includes the following information:

- (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 either the permittee's prepared "Emission Control Action Program(s)" or, in the absence of a prepared Emission Control Action Program, the appropriate requirements and "Emission Reduction Objectives" specified in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 3. – "Regulations for the Prevention of Air Pollution Emergency Episodes" – for the level of emergency declared and the permittee's source of air contamination.

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

1.20 Except as otherwise provided herein, a modification of the permittee's facility may require a Permit to Construct in accordance with the provisions specified in Regulation 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 Regulation 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 any 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 Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. and/or Ch. 5.; or
 - (2) The source is approved to use under any permit issued under Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. and/or Ch. 5.;;
- (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 Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. or Ch. 5.; or
- (f) Any change in ownership of the stationary source.

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

- 1.21 An administrative permit amendment may be made by the Permit Board authorizing changes in ownership or operational control consistent with the following procedure:
 - (a) The Permit Board shall take action within sixty (60) days after receipt of a completed request for a permit transfer, unless a public hearing is scheduled. The Permit Board may incorporate such changes without providing notice to the public or affected State(s) provided that it designates any such permit revision as having been made pursuant to this paragraph.
 - (b) A permit transfer shall be approved upon satisfaction of the following:
 - (1) The applicant for transfer approval can demonstrate to the Permit Board it has the financial resources, operational expertise, and environmental compliance history over the last five (5) years to insure compliance with the terms and conditions of the permit to be transferred, except where this conflicts with State Law, and
 - (2) The Permit Board determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the MDEQ.

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

1.22 This permit is a Federally approved operating permit under Title V of the Federal Act. All terms and conditions in this permit, including any provisions designed to limit the permittee'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 an Emergency Air Pollution Episode Alert imposed by the Executive Director of MDEQ; 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 fifty (50) yards of an occupied dwelling.
- (c) Burning must not occur within 500 yards of commercial airport property, private airfields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator.

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

- 1.24 Except as otherwise specified herein, the permittee shall be subject to the following 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 five (5) working days of the time the upset began, the source submitted a written report to the Department describing the upset, the steps taken to mitigate excess emissions or any other non-compliance, and the corrective actions taken and;
- (v) That as soon as practicable but no later than twenty-four (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) Start-ups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)
 - (1) Start-ups and shutdowns are part of normal source operation. Emission limitations apply during start-ups and shutdowns unless source specific emission limitations or work practice standards for start-ups 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 Regulation 11 Mississippi Administrative Code, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for start-ups and shutdowns. Source specific emission limitations or work practice standards established for start-ups 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 start-up or shutdown, see the "Upset" requirements above.

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

1.25 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements specified in 40 CFR Part 61, Subpart M (National Emission Standard for Asbestos), 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	1,700 MMBtu/hr GE Model PG7241FA natural gas-fired combustion turbine with a heat recovery steam generator (HRSG) equipped with a 265 MMBtu/hr duct burner. The turbine is equipped with dry low-NO _x burners and a selective catalytic reduction (SCR) system which uses aqueous ammonia as a reducing agent to control NO _x emissions from the exhaust stream of the combined cycle system. (Ref. Generating Unit 001)		
AA-002	1,700 MMBtu/hr GE Model PG7241FA natural gas-fired combustion turbine with a HRSG equipped with a 265 MMBtu/hr duct burner. The turbine is equipped with dry low-NO _x burners and a SCR system which uses aqueous ammonia as a reducing agent to control NO _x emissions from the exhaust stream of the combined cycle system. (Ref. Generating Unit 002)		
AA-003	1,700 MMBtu/hr GE Model PG7241FA natural gas-fired combustion turbine with a HRSG equipped with a 265 MMBtu/hr duct burner. The turbine is equipped with dry low-NO _x burners and a SCR system which uses aqueous ammonia as a reducing agent to control NO _x emissions from the exhaust stream of the combined cycle system. (Ref. Generating Unit 003)		
AA-005	8.4 MMBtu/hr (1,109 HP / 827 kW) diesel-fired backup emergency generator used to provide emergency power for critical plant systems (Model Year 2003)		
AA-006	2.0 MMBtu/hr (240 HP / 179 kW) diesel-fired emergency firewater pump engine (Model Year 2003)		
AA-013	17.085 MMBtu/hr natural gas-fired auxiliary boiler (Ref. Auxiliary Boiler AB-1)		

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) and (b):
 - (a) Start-up operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per start-up in any one hour and not to exceed three (3) start-ups 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 sixty (60) percent opacity and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour.

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

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

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

- 3.A.3 The permittee shall not cause, permit, or allow the emission of particles or any contaminants in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create a condition of air pollution.
 - (a) The permittee shall not cause or permit the handling, transporting, or storage of any material in a manner which allows or may allow unnecessary amounts of particulate matter to become airborne.
 - (b) When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance to property other than that from which it originated or to violate any other provision of Regulation 11 Miss. Admin. Code Pt. 2, Ch. 1, the Commission may order such corrected in a way that all air and gases or air and gas-borne material leaving the building or equipment are controlled or removed prior to discharge to the open air.

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

B. <u>EMISSION POINT SPECIFIC EMISSION LIMITATIONS & STANDARDS</u>

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
AA-001 AA-002 AA-003	11 Miss. Admin. Code Pt. 2, Ch. 5., as established in the PSD Permit to Construct issued April 25, 2000	3.B.1	PM/PM ₁₀ (filterable)	≤ 0.02 lbs/MMBtu not to exceed 24 lbs/hr based on a 3-hr rolling average and 105 TPY based on a 12-month rolling total (PSD BACT Limit)
			SO_2	≤ 12 lbs/hr based on a 3-hr rolling average and 52.6 TPY based on a 12-month rolling total
			NO _x	≤ 3.5 ppm @ 15% oxygen on a dry basis, not to exceed 24.1 lbs/hr, both limits based on a 3-hr average, and 105.6 TPY based on a 12-month rolling total (PSD BACT Limit)
			СО	≤ 17.4 ppm @ 15% oxygen on a dry basis, not to exceed 61 lbs/hr, both limits based on a 3-hr average and 267 TPY based on a 12-month rolling total (PSD BACT Limit)
			Opacity	≤ 10%
		3.B.2	Fuel Restriction	Natural gas only
		3.B.3	NO _x	Control emissions using SCR
		3.B.4	Operating Restrictions	Definition of startup, shutdown, and tuning
		3.B.5		Minimize emissions during startup, shutdown, and tuning
	40 CFR 60, Subpart GG Standards of Performance for Stationary Gas Turbines 40 CFR 60.330, Subpart GG	3.B.6	NO _x SO ₂	Applicability
	40 CFR 60.332(a)(1) and (b), Subpart GG	3.B.7	NO _x	STD = 0.0075*(14.4/Y) + F
	40 CFR 60.333(b), Subpart GG	3.B.2	SO ₂	Sulfur content in fuel limited to $\leq 0.8\%$ by weight (8,000 ppmw)
	40 CFR 60 Subpart Da Standards of Performance for Electric Utility Steam Generating Units 40 CFR 60.40Da(e)(1) and (2), and 60.48Da(a), Subpart Da	3.B.8	PM SO ₂ NO _x Opacity	Applicability
AA-001	40 CFR 60.42Da(a), (b)(2), and	3.B.9	PM	Exemption

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
AA-002	(f)(1), Subpart Da		Opacity	
AA-003	40 CFR 60.43Da(b)(2), Subpart Da	3.B.10	SO_2	≤ 0.20 lbs/MMBtu
	40 CFR 60.44Da(d)(1), Subpart Da	3.B.11	NO _x	≤ 1.6 lbs/MWh (30-boiler operating day rolling average)
	40 CFR 72-78	3.B.12	SO_2	Applicability
	Acid Rain Program Regulations		NO _x	
	40 CFR 72.6, Subpart A			
AA-013	40 CFR 60, Subpart Dc	3.B.13	SO ₂ PM	Applicability
	Standards of Performance for Small Industrial-Commercial- Institutional Steam Generating Units			
	40 CFR 60.40c(a), Subpart Dc			
AA-005	40 CFR 63, Subpart ZZZZ	3.B.14	HAP	Applicability
AA-006	NESHAP for Stationary Reciprocating Internal Combustion Engines			
	40 CFR 63.6580, 63.6585(a) and (c), 63.6590(a)(1)(iii), and 63.6605, Subpart ZZZZ			
	40 CFR 63.6640(f)(1)(2), and (4), Subpart ZZZZ	3.B.15		Operating requirements
AA-001 AA-002 AA-003 AA-013	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.16	PM (filterable)	$E = 0.8808*I^{-0.1667}$
AA-005 AA-006	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.B.17	PM (filterable)	≤ 0.6 lbs/MMBtu
AA-013	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.18	SO ₂	≤ 4.8 lbs/MMBtu

- 3.B.1 For Emission Points AA-001 through AA-003, the permittee shall comply with the following emission limitations for each emission point:
 - (a) Particulate Matter/Particulate Matter less than 10 microns (PM/PM₁₀) (filterable) less than or equal to 0.02 lbs/MMBtu not to exceed 24 pounds/hour (lbs/hr) based on a 3-hour rolling average and 105 tons/year (TPY) based on a 12-month rolling total. [PSD BACT Limit]
 - (b) Sulfur Dioxide (SO_2) less than or equal to 12 lbs/hr based on a 3-hour rolling average and 52.6 TPY based on a 12-month rolling total.

- (c) Nitrogen Oxides (NO_x) less than or equal to 3.5 ppm @15% oxygen on a dry basis not to exceed 24.1 lbs/hr with both short-term limits based on a 3-hour rolling average and 105.6 TPY based on a 12-month rolling total. [PSD BACT Limit]
- (d) Carbon Monoxide (CO) less than or equal to 17.4 ppm @ 15% oxygen on a dry basis not to exceed 61 lbs/hr with both short-term limits based on a 3-hour average and 267 TPY based on a 12-month rolling total. [PSD BACT Limit]
- (e) Opacity less than or equal to 10 percent as determined by EPA Reference Method 9 from 40 CFR 60, Appendix A.

The permittee shall comply with the short-term limits noted above at all times, except during startups, shutdowns and tuning sessions. Emissions during these periods shall be included when determining compliance with the tons/year limits. These periods are defined in Condition 3.B.4.

- (Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5., as established in the PSD Permit to Construct issued April 25, 2000)
- 3.B.2 For Emission Points AA-001 through AA-003, the permittee is limited to only burning natural gas that does not contain sulfur in excess of 0.8 percent by weight (8,000 ppmw).
 - (Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5., as established in the PSD Permit to Construct issued April 25, 2000, and 40 CFR 60.333(b), Subpart GG)
- 3.B.3 For Emission Points AA-001 through AA-003, the permittee shall operate selective catalytic reduction (SCR) systems on each unit at all times to control NO_x emissions.
 - (Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5., as established in the PSD Permit to Construct issued April 25, 2000)
- 3.B.4 For Emission Points AA-001 through AA-003, startup, shutdown, and tuning sessions are defined as follows:
 - (a) Startup The duration beginning immediately following the initial firing of the gas turbine and ending 15 minutes after the turbine reaches Mode 6, which is achieved when the dry low-NO_x burners (DLNB) are engaged. A startup event shall not exceed 4.5 hours in duration.
 - (b) Shutdown The period beginning when the combustion turbine leaves operational Mode 6 and ending when the flame is extinguished in the turbine. A shutdown event shall not exceed 1.0 hour in duration.

(c) Tuning Session – Operating periods that occur because of required seasonal tuning, after a combustor change-out, after a major repair or maintenance to a combustor, or other similar maintenance circumstance. Tuning sessions are completely periodically to optimize combustion or emission reductions from the turbine. Tuning events must be performed in accordance with the manufacturer's recommendations. During the tuning event, all reasonable steps to minimize levels of emissions that exceed the limits of this permit shall be taken. The permittee shall submit a notice of tuning events to the MDEQ within five (5) working days of the time the tuning event began.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5., as established in the PSD Permit to Construct issued April 25, 2000)

- 3.B.5 For Emission Points AA-001 through AA-003, the permittee shall operate equipment in a manner consistent with good air pollution control practices to minimize emissions during startups, shutdowns, and tuning sessions which shall include:
 - (a) Operation in accordance with the manufacturer's written instructions or other written instructions developed and maintained by the permittee, which shall include at a minimum the following measures:
 - (1) Review of operating parameters of the unit during startups and shutdowns as necessary to make adjustments to reduce or eliminate excess emissions.
 - (2) Operation of the SCR systems as soon as, and as long as, the unit operating conditions are amenable to its effective use.
 - (b) Maintenance of the SCR systems in accordance with written procedures developed and maintained by the permittee. These procedures shall be reviewed at least annually.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5., as established in the PSD Permit to Construct issued April 25, 2000)

3.B.6 The combustion turbines associated with Emission Points AA-001 through AA-003 are subject to and shall comply with the applicable requirements of the Standards of Performance for Stationary Gas Turbines, 40 CFR 60, Subpart GG and the applicable General Provisions found in 40 CFR 60, Subpart A.

(Ref.: 40 CFR 60.330, Subpart GG)

3.B.7 For Emission Points AA-001 through AA-003, the permittee shall meet the NOx emission limit established using the following equation:

STD = 0.0075(14.4/Y) + F

where STD is the allowable NOx emission concentration (percent by volume at 15 percent oxygen and on a dry basis), Y is the manufacturer's rated heat rate at manufacturer's rated 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 (the value of Y shall not exceed 14.4 kilojoules per watt hour), and F is the NO_x emission allowance for fuel-bound nitrogen as defined in 40 CFR 60.332(a)(4).

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

3.B.8 The duct burners associated with Emission Points AA-001 through AA-003 are subject to and shall comply with the applicable requirements of the Standards of Performance for Electric Utility Steam Generating Units, 40 CFR 60, Subpart Da and the applicable requirements of the General Provisions in 40 CFR 60, Subpart A. Only the emissions generated from the combustion of fuel in the steam generating unit (i.e., duct burners) are subject to the requirements of Subpart Da. The applicable emission limits apply at all times except during periods of startup, shutdown, or malfunction.

(Ref.: 40 CFR 60.40Da(e)(1) and (2), and 60.48Da(a), Subpart Da)

3.B.9 For the duct burners associated with Emission Points AA-001 through AA-003, the permittee is exempt from having to meet the applicable PM and Opacity limitations since the units combust natural gas.

(Ref.: 40 CFR 60.42Da(a), (b)(2), and (f)(1), Subpart Da)

3.B.10 For the duct burners associated with Emission Points AA-001 through AA-003, the permittee shall not emit any gases that contain SO₂ in excess of 0.20 lbs/MMBtu heat input.

(Ref.: 40 CFR 60.43Da(b)(2), Subpart Da)

3.B.11 For the duct burners associated with Emission Points AA-001 through AA-003, the permittee shall not emit any gases that contain NOx in excess of 1.6 lbs/MWh gross energy output as determined on a 30-boiler operating day rolling average basis.

(Ref.: 40 CFR 60.44Da(d)(1), Subpart Da)

3.B.12 Emission Points AA-001 through AA-003 are subject to and shall comply with all applicable requirements of the Acid Rain Program as specified in 40 CFR Parts 72-78.

(Ref.: 40 CFR 72.6, Subpart A)

3.B.13 Emission Point AA-013 is subject to and shall comply with the applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc and the applicable General Provisions, 40 CFR 60, Subpart A. Since the unit is fired with natural gas only, there are no applicable SO₂ or PM/Opacity standards in Subpart Dc. The only applicable Subpart Dc requirement is the monthly fuel usage recordkeeping requirement contained in Section

5.B of this permit.

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

3.B.14 Emission Points AA-005 and AA-006 are subject to and shall comply with the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR 63, Subpart ZZZZ and the applicable General Provisions, 40 CFR 63, Subpart A identified in Table 8 of Subpart ZZZZ.

For purposes of Subpart ZZZZ, these engines are considered existing, emergency, compression ignition (CI) stationary RICE located at an area source of HAP emissions.

At all times, the permittee shall be in compliance with the applicable requirements of Subpart ZZZZ and shall operate and maintain the engines in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the MDEQ which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspections of the source.

(Ref.: 40 CFR 63.6580, 63.6585(a) and (c), 63.6590(a)(1)(iii), and 63.6605, Subpart ZZZZ)

- 3.B.15 Emission Points AA-005 and AA-006 shall be considered emergency stationary RICE under Subpart ZZZZ provided the engines only operate 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 an engine according to the requirements in (a) through (c) below, the engine will not be considered an emergency engine under Subpart ZZZZ and must meet all applicable requirements for non-emergency engines.
 - (a) There is no limit on the use of an engine during an emergency situation.
 - (b) The permittee may operate an 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 permittee maintains records indicating the federal, state, or local standards require maintenance testing of an engine beyond 100 hours per calendar year.

(c) Emergency engines 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 40 CFR 63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 63.6640(f)(1), (2), and (4), Subpart ZZZZ)

3.B.16 For Emission Points AA-001, AA-002, AA-003, and AA-013, the permittee shall not have particulate matter 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.17 For Emission Points AA-005 and AA-006, 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.B.18 For Emission Point AA-013, the maximum discharge of sulfur dioxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

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

C. INSIGNIFICANT AND TRIVIAL ACTIVITY EMISSION LIMITATIONS & STANDARDS

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

3.C.1 The maximum permissible emission of ash and/or particulate matter (PM) from fossil fuel burning installations of less than ten (10) million BTU (MMBTU) per hour heat

input shall not exceed 0.6 pounds per MMBTU 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 MMBTU heat input.

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

D. WORK PRACTICE STANDARDS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
AA-005 AA-006	40 CFR 63.6603(a), 63.6625(i), and Item 4 and Footnotes1 and 2 of Table 2d, Subpart ZZZZ	3.D.1	НАР	Maintenance requirements
	40 CFR 63.6625(e)(3) and (h), 63.6640(a), and Table 6, Subpart ZZZZ	3.D.2		Operating requirements

- 3.D.1 For Emission Points AA-005 and AA-006, the permittee shall comply with the following requirements:
 - (a) Change oil and filter every 500 hours of operation or within one (1) year plus thirty (30) days of the previous change, whichever comes first or perform an oil analysis in accordance with 40 CFR 63.6625(i) in the same frequency in order to extend the oil change requirement;
 - (b) Inspect the air cleaner every 1,000 hours of operation or within one (1) year plus thirty (30) days of the previous inspection, whichever comes first, and replace as necessary; and
 - (c) Inpsect all hoses and belts every 500 hours of operation or within one (1) year plus thirty (30) days of the previous inspection, whichever comes first, and replace as necessary.

If an engine is operating an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule in (a)-(c) above, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated.

(Ref.: 40 CFR 63.6603(a), 63.6625(i), and Item 4 and Footnotes 1 and 2 of Table 2d, Subpart ZZZZ)

3.D.2 For Emission Points AA-005 and AA-006, the permittee shall operate and maintain the engines according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

(Ref.: 40 CFR 63.6625(e)(3) and (h), 63.6640(a), and Table 6, Subpart ZZZZ)

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 terms and conditions contained in this permit (including emission limitations, standards, or work practices) by January 31 of each year for the preceding calendar year. If the permit was reissued or modified during the course of the preceding calendar year, the compliance certification shall address each version of the permit. Each compliance certification shall include the following information:
 - (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), and (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 the following information:
 - (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 of each calendar year for the preceding sixmonth 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 Regulation 11 Miss. Admin. Code Pt. 2, R. 6.2.E.

For applicable periodic reporting requirements in 40 CFR Parts 60, 61, and 63, the permittee shall comply with the deadlines in this condition for reporting conducted on a semiannual basis. Additionally, any required quarterly reports shall be submitted by the end of the month following each calendar quarter period (i.e., April 30, July 31, October 31, and January 31), and any required annual reports shall be submitted by January 31 following each calendar year.

- (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1). and 40 CFR 60.19(c), 61.10(g), and 63.10(a)(5))
- 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. The report shall be made within five (5) working days of the time the deviation began.
 - (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(2).)
- 5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements (if applicable). All test methods shall be those respective versions (or their equivalents) approved by 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).)
- 5.A.8 Unless otherwise specified in Section 4 of this permit, the monitoring, testing, recordkeeping, and reporting requirements specified in Section 5 herein supersede the requirements of any preceding permit to construct and/or operate upon permit issuance.
 - (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	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.1	NO _x CO	CEMS
AA-003	40 CFR 60.334(c), Subpart GG	5.B.2	NO_x	
	40 CFR 60.334(h)(3)(i), Subpart GG and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.3	SO_2	Fuel records
	40 CFR 60.48Da(k), 60.49Da(c)(2), (e), (s), and (w), and 60.50Da(d)(2), Subpart Da	5.B.4	NO _x	CEMS
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit issued June 30, 2014	5.B.5	Operating Records	Monitor operating hours and modes of operation
	11 Miss. Admin. Code. Pt. 2, R. 6.3.A(3)(a)(2).	5.B.6	NO _x CO	Emissions data substitution procedures
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.7	CO O ₂	CEMS
	11 Miss. Admin. Code. Pt. 2, R. 6.3.A(3)(a)(2).	5.B.8	Opacity	Annual visual observation requirements
	40 CFR 75.57, Subpart C	5.B.9	SO_2 NO_x	Emission monitoring
AA-013	40 CFR 60.48c(g)(2), Subpart Dc	5.B.10	Fuel Usage	Monitor and record fuel usage on a monthly basis
AA-005 AA-006	40 CFR 63.6625(f) and 63.6655(f)(2), Subpart ZZZZ	5.B.11	НАР	Install non-resettable hour meter and record hours of operation
	40 CFR 63.6655(a)(1), (2), and (5), and (e)(2) and 63.6660, Subpart ZZZZ	5.B.12		General recordkeeping

5.B.1 For Emission Points AA-001 through AA-003, the permittee shall demonstrate compliance with the NO_x and CO emission limits using a Continuous Emission Monitoring System (CEMS). Demonstrating compliance with the ppm, lbs/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.

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

5.B.2 For Emission Points AA-001 through AA-003, the permittee shall use the CEMS installed to meet the 40 CFR 75 NO_x monitoring to demonstrate compliance with the 40 CFR 60, Subpart GG emission limit except that missing data periods shall be reported as monitor downtime in the excess emissions and monitoring performance report. The monitoring requirements of Condition 5.B.1 and demonstration of the NO_x short term limits in Condition 3.B.1 satisfies this condition.

(Ref.: 40 CFR 60.334(c), Subpart GG)

5.B.3 For Emission Points AA-001 through AA-003, the permittee shall keep records (i.e., purchase records, fuel sampling records, or tariff sheets) that demonstrate the sulfur content of the fuel does not exceed the maximum sulfur content specified in Condition 3.B.2.

(Ref.: 40 CFR 60.334(h)(3)(i), Subpart GG and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.4 For the duct burners associated with Emission Points AA-001 through AA-003, the permittee shall demonstrate compliance with the 40 CFR 60, Subpart Da NO_x emission limit using the CEMS installed to comply with the 40 CFR 75 monitoring requirements. The data collected by the monitor shall be capable of demonstrating compliance with the Subpart Da limit and shall comply with the unit specific monitoring plan

The CEMS shall be operated and data shall be recorded during all periods of operation of the affected facility including periods of startup, shutdown, and malfunction, except for CEMS breakdowns, repairs, calibration checks, and zero span adjustments.

(Ref.: 40 CFR 60.48Da(k), 60.49Da(c)(2), (e), (s), and (w), and 60.50Da(d)(2), Subpart Da)

- 5.B.5 For Emission Points AA-001 through AA-003, the permittee shall record the hours of operation on a daily basis and keep records documenting all startups, shutdowns, and tuning sessions associated with the combustion turbines, duct burners, and SCR systems. Such records shall include the following data for each startup, shutdown, or tuning session:
 - (a) Date;
 - (b) Start time;
 - (c) End time; and
 - (d) A description of any deviations from the manufacturer's or permittee's written instructions or permit limitations that contribute to excessive emissions.

In addition to the information above, the permittee shall also record the purpose, actual emissions generated, and confirmation as to whether or not good air pollution practices

were utilized during each tuning session. All records shall be kept in accordance with Condition 5.A.3 and made available to the MDEQ upon request.

(Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit issued June 30, 2014)

5.B.6 For Emission Points AA-001 through AA-003, the permittee shall use the MDEQ approved data substitution procedures to demonstrate compliance with NO_x and CO limits during periods where data is not being collected by the CEMS.

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

5.B.7 For Emission Points AA-001 through AA-003, the permittee shall install, calibrate, maintain, and operate continuous monitoring systems for CO as specified in 40 CFR 60, Appendices B and F. The permittee shall follow the specifications of Performance Specification 4A found in 40 CFR 60, Appenidx B for the installation, calibration, maintenance, and operation of the CO CEMS. The permittee may install a dual-range analyzer with the high range setting equal to 1,000 ppm at a minimum. 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 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 a 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 a 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 (as provided in section 2.3.3 of Appendix B) following the end of the eighth successive elapsed calendar quarter, or data from the CEMS will become invalid. For diluent monitors, RATA may be performed annually (i.e., once every four successive QA operating quarters).

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

5.B.8 For Emission Points AA-001 through AA-003, the permittee shall demonstrate compliance with the 10 percent opacity limit annually (not to exceed 13 months from the previous one) 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.

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

5.B.9 For Emission Points AA-001 through AA-003, the permittee shall monitor and keep records of emissions in accordance with 40 CFR 75. The permittee shall maintain a file onsite of all measurements, data, reports, and other required information for each affected unit for a period of at least three (3) years from the date of each record.

(Ref.: 40 CFR 75.57, Subpart C)

5.B.10 For Emission Point AA-013, the permittee shall monitor and record the amount of fuel combusted during each calendar month. These records shall be maintained onsite in accordance with Condition 5.A.3.

(Ref.: 40 CFR 60.48c(g)(2), Subpart Dc)

5.B.11 For Emission Points AA-005 and AA-006, the permittee shall install a non-resettable hour meter on the engines, if one is not already installed. The permittee shall keep records of the hours of operation of the engines that are recorded through the hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation.

(Ref.: 40 CFR 63.6625(f) and 63.6655(f)(2), Subpart ZZZZ)

- 5.B.12 For Emission Points AA-005 and AA-006, the permittee shall keep the following records:
 - (a) A copy of each notification and report submitted to comply with Subpart ZZZZ;
 - (b) Records of the occurrence and duration of each malfunction of the engine or hour meter;
 - (c) Records of any actions taken during periods of malfunction to minimize emissions, including corrective actions to restore a malfunctioning engine or hour meter to its normal manner of operation; and
 - (d) Records of the maintenance conducted on the engine in order to demonstrate the engine was operated and maintained in accordance with the maintenance plan.

All records shall be in a form suitable and ready for expeditious review for a period of five (5) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records may be kept in an electronic or hard copy format.

C. SPECIFIC REPORTING REQUIREMENTS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Reporting Requirement
AA-001 AA-002 AA-003	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).	5.C.1	NO _x CO Opacity	Semiannual report
		5.C.2	Hours of Operation	Semiannual report containing hours of operation of each unit in each mode and during startup, shutdown, and tuning
	40 CFR 60.51Da(a), (b), (c), (f), (h), and (j), Subpart Da	5.C.3	NO _x	Semiannual report
	40 CFR 60.334(j), Subpart GG and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).	5.C.4	NOx	Semiannual excess emissions and monitor downtime report
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).	5.C.5	SO ₂	Semiannual report
AA-005 AA-006	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.6	Hours of Operation	Annual report summarizing hours of operation during the calendar year
	11 Miss. Admin Code Pt. 2, R 2.2.B(10)., as established in the Title V Operating Permit issued June 30, 2014, and 40 CFR 63.6640(b), 63.6650(f), and Footnote 1 to Table 2c, Subpart ZZZZ	5.C.7	НАР	Semiannual deviations report

5.C.1 For Emission Points AA-001 through AA-003, the permittee shall submit a semiannual report in accordance with Condition 5.A.4 which contains a summary of the 12-month rolling totals for emissions during the reporting period. This information should also include the results from any visible observations or VEEs completed during the reporting period.

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

5.C.2 For Emission Points AA-001 through AA-003, the permittee shall submit a semiannual report in accordance with Condition 5.A.4 which contains information summarizing the hours of operation for each unit during the reporting period for each operating mode (i.e., normal, startup, shutdown, etc.). The report shall identify any operating periods that deviate from the Condition 3.B.4 requirements for startup, shutdown, or tuning sessions.

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

5.C.3 For the duct burners associated with Emission Points AA-001 through AA-003, the permittee shall submit all data from any performance tests within sixty (60) days of

such test. Additionally, the permittee shall submit the following information for each 24-hour period in the semiannual report that shall be postmarked by the 30th day following the end of each six-month period:

- (a) Calendar date.
- (b) The average NO_x emission rate (lbs/MWh gross energy output) for each thirty (30) successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the emission standards, if any; and, a description of any corrective actions taken.
- (c) Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 75 percent of the hours of operation of the facility; justification for not obtaining sufficient data; and a description of any corrective actions taken.
- (d) Identification of any times when emissions data is excluded from the calculation of average emission rates because of startup, shutdown, or malfunction.
- (e) Identification of the "F" factor used for calculations, method of determination, and type of fuel combusted.
- (f) Identification of any times the pollutant concentration exceeded full span of the CEMS.
- (g) If the minimum quantity of emission data required in (c) above is not obtained for any thirty (30) successive boiler operating days, the permittee shall also report the information required by 40 CFR 60.51Da(c)(1)-(5).
- (h) For any periods for which NO_x emissions data is not available, the permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.
- (i) The permittee shall submit a signed statement in the report indicating whether:
 - (1) The required CEMS calibration, span, and drift checks or other periodic audits have or have not been performed as specified.
 - (2) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.
 - (3) The minimum data requirements have or have not been met; or the minimum data requirements have not been met for errors that were avoidable.
 - (4) Compliance with the standards has or has not been achieved during the reporting period.

(Ref.: 40 CFR 60.51Da(a), (b), (c), (f), (h), and (j), Subpart Da)

5.C.4 For Emission Points AA-001 through AA-003, the permittee shall submit a semiannual excess emission and monitor downtime report for each CEMS. All reports must be postmarked by January and July 30th which is thirty (30) days after the end of each semiannual reporting period. This report shall include all the information required in 40 CFR 60.7(c) and (d) identifying any excess emissions (for both lbs/hr and ppm limits) and monitor downtime that occurred during the reporting period.

(Ref.: 40 CFR 60.334(j), Subpart GG and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

5.C.5 For Emission Points AA-001 through AA-003, the permittee shall submit information identifying any operating periods in which the sulfur content of the fuel being fired exceeded 0.8 percent by weight (8,000 ppmw) in the semiannual report required by Condition 5.A.4. If no exceedances occurred during the reporting period, the permittee shall state such in the report.

(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 report the annual hours the engines operated in emergency use, included what constituted the emergency, and the annual hours operated in non-emergency use. The annual hours shall be submitted for each calendar year in the semiannual report due January 31st of each year.

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

5.C.7 For Emission Points AA-005 and AA-006, the permittee shall report all deviations from any emission or operating limitation of Subpart ZZZZ in the semiannual report required by Condition 5.A.4. Such deviations shall include any failure to perform the work practice on the required schedule. In the event a work practice is delayed because an engine operating during an emergency or if performing the work practice on the required schedule posed an unacceptable risk under federal, state, or local law, the permittee shall include in the report the reason for the delay.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit issued June 30, 2014, and 40 CFR 63.6640(b), 63.6650(f), and Footnote 1 to Table 2c, Subpart ZZZZ)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

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 MDEQ 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 containing class I, class II or non-exempt substitute refrigerants;
 - (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

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

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_x Ozone Season Group 2 Trading Program.

Unit ID: Emission Points AA-001, AA-002, and AA-003						
Parameter	CEMS requirements pursuant to 40 CFR part 75, subpart B (for SO ₂ monitoring) and 40 CFR part 75, subpart H (for NO _x monitoring)	Excepted monitoring system requirements for gas- and oil- fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E	
SO_2		X				
NO _x	X					
Heat Input		X				

- 9.2 The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.830 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.
- 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_x 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_x Ozone Season Group 2 source and each CSAPR NO_x 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_x 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_x 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_x emissions requirements.
 - (1) CSAPR NO_x 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_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season

Group 2 unit at the source shall hold, in the source's compliance account, CSAPR NO_x 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_x emissions for such control period from all CSAPR NO_x Ozone Season Group 2 units at the source.

- (ii) If total NO_x emissions during a control period in a given year from the CSAPR NO_x Ozone Season Group 2 units at a CSAPR NO_x Ozone Season Group 2 source are in excess of the CSAPR NO_x 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_x Ozone Season Group 2 unit at the source shall hold the CSAPR NO_x 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_x 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_x Ozone Season Group 2 assurance provisions.
 - (i) If total NO_x emissions during a control period in a given year from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x 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_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x 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_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state (and Indian country within the borders of such state) for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and
- (B) The amount by which total NO_x emissions from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x 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_x 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_x emissions from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x 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_x emissions exceed the sum, for such control period, of the State NO_x 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_x emissions from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x 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_x emissions from the CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x 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_x 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_x 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_x 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_x 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_x 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_x Ozone Season Group 2 allowance that was allocated for such control period or a control period in a prior year.
 - (ii) A CSAPR NO_x 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_x 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_x 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_x Ozone Season Group 2 allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:
 - (i) Such authorization shall only be used in accordance with the CSAPR NO_x 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_x 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_x Ozone Season Group 2 allowances in accordance with 40 CFR part 97, subpart EEEEE.
 - 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_x Ozone Season Group 2 source and each CSAPR NO_x 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_x 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_x Ozone Season Group 2 Trading Program.
- (2) The designated representative of a CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall make all submissions required under the CSAPR NO_x 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_x Ozone Season Group 2 Trading Program that applies to a CSAPR NO_x Ozone Season Group 2 source or the designated representative of a CSAPR NO_x Ozone Season Group 2 source shall also apply to the permittee of such source and of the CSAPR NO_x Ozone Season Group 2 units at the source.
- (2) Any provision of the CSAPR NO_x Ozone Season Group 2 Trading Program that applies to a CSAPR NO_x Ozone Season Group 2 unit or the designated representative of a CSAPR NO_x 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_x 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_x Ozone Season Group 2 source or CSAPR NO_x 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

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
EPA Environmental Protection Agency
gr./dscf Grains Per Dry Standard Cubic Foot

HP Horsepower

HAP Hazardous Air Pollutant

lb./hr Pounds per Hour

M or K Thousand

MACT Maximum Achievable Control Technology

MDEQ Mississippi Department of Environmental Quality

MM Million

MMBTU/H 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 Part 61; or National Emission Standards for Hazardous Air

Pollutants for Source Categories, 40 CFR Part 63

NMVOC Non-Methane Volatile Organic Compounds

NO_X Nitrogen Oxides

NSPS New Source Performance Standards, 40 CFR Part 60

O&M Operation and Maintenance

PM Particulate Matter

PM₁₀ Particulate Matter less than 10 μ m in diameter PM_{2.5} Particulate Matter less than 2.5 μ m in diameter

ppm Parts per Million

PSD Prevention of Significant Deterioration

SIP State Implementation Plan

SO₂ Sulfur Dioxide

SSM Startup, Shutdown, and Malfunction

TPY Tons per Year

TRS Total Reduced Sulfur

VEE Visible Emissions Evaluation
VHAP Volatile Hazardous Air Pollutant

VOHAP Volatile Organic Hazardous Air Pollutant

VOC Volatile Organic Compound

APPENDIX B

List of Regulations Referenced In this Permit

- 11 Miss. Admin. Code, Part 2, Ch. 1. Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants (Amended May 24, 2018)
- 11 Miss. Admin. Code, Part 2, Ch. 2. Permit Regulations for the Construction and/or Operation of Air Emissions Equipment (Amended February 22, 2024)
- 11 Miss. Admin. Code, Part 2, Ch. 5. Regulations for the Prevention of Significant Deterioration of Air Quality (Amended February 22, 2024)
- 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 27, 2024)
- 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units
- 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines
- 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines
- 40 CFR 72-78, Acid Rain Program General Provisions
- 40 CFR 82, Protection of Stratospheric Ozone
- 40 CFR 97, Subpart EEEEE, Cross State Air Pollution Rule (CSAPR) NO_x Ozone Season Group 2 Trading Program

APPENDIX C

Phase II Acid Rain Permit

PHASE II ACID RAIN PERMIT

Issued to: TVA Southaven Combined Cycle Plant

Operated by: Tennessee Valley Authority

ORIS code: 55269

Effective: TVOP Issuance Date to TVOP Expiration Date

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 3, 2000
2) Permit finalized and issued.	December 28, 2000
3) Draft permit for public and EPA comment.	October 14, 2005
4) Permit finalized and issued.	January 3, 2006
5) Draft permit for public and EPA comment.	May 15, 2014
6) Permit finalized and issued.	June 30, 2014
7) Draft permit for public and EPA comment.	July 25, 2019
8) Permit finalized and issued.	September 26, 2019

Present Action:

9) Draft permit for public and EPA comment (permit renewal). DATE				
		_		
Signature	Date			
Becky Simonson, P.E.				

Becky Simonson, 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: TVA Southaven Combined Cycle Plant

Operated by: Tennessee Valley Authority

ORIS code: 55269

Effective: TVOP Issuance Date to TVOP Expiration Date

ACID RAIN PERMIT CONTENTS:

1) Statement of Basis.

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

1) STATEMENT OF BASIS:

Statutory and Regulatory Authorities: In accordance with the Mississippi Air and Water Pollution Control Law, specifically Miss. Code Ann. §§ 49-17-1 through 49-17-43, and any subsequent amendments, and Titles IV and V of the Clean Air Act, the Mississippi Department of Environmental Quality issues this permit pursuant to the State of Mississippi Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, 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) SO₂ ALLOWANCE ALLOCATIONS AND NO_x REQUIREMENTS FOR EACH AFFECTED UNIT:

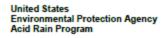
		2025	2026	2027	2028	2029
AA-001 AA-002 AA-003	SO ₂ allowances, under Table 2 of 40 CFR Part 73.	NA	NA	NA	NA	NA
	NO _x limit			NA		

3) COMMENTS, NOTES AND JUSTIFICATIONS:

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

4) PHASE II PERMIT APPLICATION:

Attached



OMB No. 2060-0258 Approval expires 05/31/2025



Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: new revised for ARP permit renewal

	_	

Identify the facility name, State, and plant (ORIS) code.

Facility (Source) Name Southaven	_{State} MS	Plant Code 55269
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STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

b	
Unit Will Hold Allowances in Accordance with 4 CFR 72.9(c)(1)	
Yes	
Yes	
Yes	



STEP 3 Permit Requirements

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - 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
 - (i) 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:
 - Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (i) 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 sourceshall:
 - (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
 - 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).
- (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 STEP 3, Cont'd.

- (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 part77.

 (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
 - Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - 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:
 - () 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;
 - (i) 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
 - (ii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (v) 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
- (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, 78, 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.

Facility (Source) Name (from STEP 1) Southaven

STEP 3, Cont'd. 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 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.

STEP 4 Certification

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 Allen A. Clare		
Signature Alla - Owe	Date	12/16/2024