

**STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT
TO OPERATE AIR EMISSIONS EQUIPMENT**

THIS CERTIFIES THAT

South Mississippi Electric Power Association
Moselle Generating Plant
Moselle-Seminary Road
Jones County

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. ' 7401 - 7671) and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Permit Issued: DEC 17 2009

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: NOV 30 2014

Permit No.: 1360-00035

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SECTION 1. GENERAL CONDITIONS

- 1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (Ref.: APC-S-6, Section III.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.: APC-S-6, Section III.A.6.b.)
- 1.3 This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (Ref.: APC-S-6, Section III.A.6.c.)
- 1.4 This permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: APC-S-6, Section III.A.6.d.)
- 1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: APC-S-6, Section III.A.6.e.)
- 1.6 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.: APC-S-6, Section III.A.5.)
- 1.7 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation APC-S-6.
 - (a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using

published mathematical formulas) or best engineering judgements where such judgements are derived from process and/or emission data which supports the estimates of maximum actual emission. (Ref.: APC-S-6, Section VI.A.2.)

- (b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee. (Ref.: APC-S-6, Section VI.A.2.) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time. (Ref.: APC-S-6, Section VI.D.2.)
 - (c) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due. (Ref.: APC-S-6, Section VI.D.)
 - (d) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition. (Ref.: APC-S-6, Section VI.C.)
- 1.8 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.: APC-S-6, Section III.A.8.)
- 1.9 Any document required by this permit to be submitted to the DEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (Ref.: APC-S-6, Section II.E.)
- 1.10 The permittee shall allow the DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- (a) enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - (c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

- (d) as authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. (Ref.: APC-S-6, Section III.C.2.)

1.11 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.: APC-S-1, Section 3.9(a))

1.12 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.: APC-S-1, Section 3.9(b))

1.13 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source. (Ref.: APC-S-6, Section III.F.1.)

1.14 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.: APC-S-6, Section III.F.2.)

- 1.15 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required pursuant to Section 112(r) of the Act to register such a plan. (Ref.: APC-S-6, Section III.H.)
- 1.16 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application. (Ref.: APC-S-6, Section IV.C.2., Section IV.B., and Section II.A.1.c.)
- 1.17 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:
- (a) the changes are not modifications under any provision of Title I of the Act;
 - (b) the changes do not exceed the emissions allowable under this permit;
 - (c) the permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such other time frame as provided in other regulations for emergencies) and the notification includes:
 - (1) a brief description of the change(s),
 - (2) the date on which the change will occur,
 - (3) any change in emissions, and
 - (4) any permit term or condition that is no longer applicable as a result of the change;
 - (d) the permit shield shall not apply to any Section 502(b)(10) change. (Ref.: APC-S-6, Section IV.F.)
- 1.18 Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in Regulation APC-S-3, "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared. (Ref.: APC-S-3)
- 1.19 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations APC-S-2, "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment", and may require modification of this permit in accordance with Regulations APC-S-6, "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act". Modification is defined as "[a]ny physical change in or change

in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:

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

- 1.20 Any change in ownership or operational control must be approved by the Permit Board. (Ref.: APC-S-6, Section IV.D.4.)
- 1.21 This permit is a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit the source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission. (Ref.: APC-S-6, Section III.B.1)
- 1.22 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance. Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry

Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.

- (a) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.
- (b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.
- (c) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator. (Ref.: APC-S-1, Section 3.7)

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

- (a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- (b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.
- (c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:
 - (1) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - (2) the permitted facility was at the time being properly operated;
 - (3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
 - (4) the permittee submitted notice of the emergency to the DEQ within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- (d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

- (e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein. (Ref.: APC-S-6, Section III.G.)

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

- (a) Upsets (as defined by APC-S-1, Section 2.37)

- (1) The occurrence of an upset constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the permittee demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:
 - (i) an upset occurred and that the permittee can identify the cause(s) of the upset;
 - (ii) the source was at the time being properly operated;
 - (iii) during the upset the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;
 - (iv) the permittee submitted notice of the upset to the DEQ within 5 working days of the time the upset began; and
 - (v) the notice of the upset shall contain a description of the upset, any steps taken to mitigate emissions, and corrective actions taken.
- (2) In any enforcement proceeding, the permittee 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.

- (b) Startups and Shutdowns (as defined by APC-S-1, Sections 2.34 & 2.29)

- (1) Startups and shutdowns are part of normal source operation. Emissions limitations applicable to normal operation apply during startups and shutdowns except as follows:
 - (i) when sudden, unavoidable breakdowns occur during a startup or shutdown, the event may be classified as an upset subject to the requirements above;
 - (ii) when a startup or shutdown is infrequent, the duration of excess emissions is brief in each event, and the design of the source is such that the period of excess emissions cannot be avoided without causing damage to equipment or persons; or

- (iii) when the emissions standards applicable during a startup or shutdown are defined by other requirements of Applicable Rules and Regulations or any applicable permit.
 - (2) In any enforcement proceeding, the permittee seeking to establish the applicability of any exception during a startup or shutdown has the burden of proof.
 - (3) In the event this startup and shutdown provision conflicts with another applicable requirement, the more stringent requirement shall apply.
- (c) Maintenance.
- (1) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the permittee can demonstrate the following:
 - (i) the permittee can identify the need for the maintenance;
 - (ii) the source was at the time being properly operated;
 - (iii) during the maintenance the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;
 - (iv) the permittee submitted notice of the maintenance to the DEQ within 5 working days of the time the maintenance began or such other times as allowed by DEQ; and
 - (v) the notice shall contain a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken.
 - (2) In any enforcement proceeding, the permittee seeking to establish the applicability of this section has the burden of proof.
 - (3) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply. (Ref.: APC-S-1, Section 10)

1.25 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M, as adopted by reference in Regulation APC-S-1, Section 8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
AA-001	868.6 MMBTU/Hr Natural Gas/ #2 Fuel Oil Fired Boiler (Unit No. 1 Boiler)
AA-002	868.6 MMBTU/Hr Natural Gas/ #2 Fuel Oil Fired Boiler (Unit No. 2 Boiler)
AA-003	868.6 MMBTU/Hr Natural Gas/ #2 Fuel Oil Fired Boiler (Unit No. 3 Boiler)
AA-004	2.1 MMBTU/Hr Gasoline Fired Fire Pump Engine
AA-005	1,547 MMBTU/Hr Natural Gas/ #2 Fuel Oil Fired Simple Cycle Combustion Turbine (SCCT) equipped with General Electric Dry Low NOx Combustors for Natural Gas Firing. Water injection will be used to reduce NOx during oil firing. (Unit No. 4)
AA-006	1143.3 MMBTU/hr (HHV) Natural Gas Fired Simple Cycle Combustion Turbine Generator (CTG) equipped with dry low NOx burners and inlet combustion air evaporative cooling.
AA-007	3.6 MMBTU/hr Natural Gas Fired Heater

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. Facility-Wide Emission Limitations & Standards

- 3.A.1 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (a) & (b).
- (a) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.
 - (b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour. (Ref.: APC-S-1, Section 3.1)
- 3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Paragraph 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets. (Ref.: APC-S-1, Section 3.2)

B. Emission Point Specific Emission Limitations & Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-001 AA-002 AA-003	APC-S-1, Section 3.4(a)(2)	3.B.3	PM	$E=0.8808 (I)^{-0.1667}$
	Prevention of Significant Deterioration Permit Issued on April 9, 1996	3.B.4	Fuel Restriction	Sulfur content of fuel $\leq 0.15\%$ by weight
AA-004	APC-S-1, Section 3.4(a)(1)	3.B.1	PM	0.6 lb/MMBTU
	APC-S-1, Section 4.1(a)	3.B.2	SO ₂	4.8 lb/MMBTU
	40 CFR 63 Subpart ZZZZ, 40 CFR 63.6585 & 40 CFR 63.6590(b)(3)	3.B.23	HAP	MACT applicability only, not affected by the requirements of this standard
AA-005 (While Firing Natural Gas)	Prevention of Significant Deterioration Permit Issued on April 9, 1996	3.B.5	PM	8.1 lb/hr; 16.5 tpy
		3.B.5	PM ₁₀	8.1 lb/hr; 16.5 tpy
		3.B.6	SO ₂	1.0 ppm _{dv} @ 15% O ₂ at 100% load; 0.98 tpy
		3.B.7	NO _x	15.0 ppm _{dv} @ 15% O ₂ at 100% load; 199.5 tpy
	And New Source Performance Standards 40 CFR Part 60 Subpart GG	3.B.7	NO _x	25.0 ppm _{dv} @ 15% O ₂ during periods of power augmentation.
		3.B.8	CO	25 ppm _{dv} @ 15% O ₂ at 100% load; 1587.0 tpy
		3.B.9	VOC	4.0 ppm _{dv} @ 15% O ₂ at 100% load; 12.0 tpy
		3.B.10	Operating Restrictions	<3,000 hours of operation in any rolling 365-day period
		3.B.4	Fuel Restriction	Sulfur content of fuel $\leq 0.15\%$ by weight
AA-005 (While Firing Fuel Oil)	Prevention of Significant Deterioration Permit Issued on April 9, 1996	3.B.5	PM	195.4 lbs/hr @ 100% load; 47.0 tpy
		3.B.5	PM ₁₀	195.4 lbs/hr @ 100% load; 47.0 tpy
		3.B.6	SO ₂	64.0 ppm _{dv} @ 15% O ₂ at 100% load; 39.8 tpy
		3.B.7	NO _x	42.0 ppm _{dv} @ 15% O ₂ at 100% load; 181.1 tpy
	and New Source Performance Standards 40 CFR Part 60, Subpart GG	3.B.8	CO	90.0 ppm _{dv} @ 15% O ₂ at 100% load; 365.8 tpy
		3.B.9	VOC	30.0 ppm _{dv} @ 15% O ₂ at 100% load; 42.3 tpy
		3.B.10	Operating Restrictions	<450 hours of operation burning fuel oil in any rolling 365-day period
		3.B.4	Fuel Restriction	Sulfur content of fuel $\leq 0.15\%$ by weight

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
AA-006	Prevention of Significant Deterioration Permit Issued on December 10, 2004 and New Source Performance Standards 40 CFR Part 60, Subpart GG	3.B.12	CO	20 PPMV at 15% oxygen on a dry basis, not to exceed 54.0 lb/hr, both limits are based on a 3-hour block average, and 148.1 tons/year
		3.B.13 3.B.16 3.B.19	NOx	9 PPMV at 15% oxygen on a dry basis, not to exceed 36.0 lbs/hr, both limits are based on a 3-hour operating rolling average, and 99.0 tons/year
		3.B.14	PM/PM ₁₀	10.0 lbs/hr and 27.5 tons/year
		3.B.15	Opacity	≤ 10%
		3.B.17 3.B.18	Startup/ Shutdown	Start up event shall not exceed 60 minutes Shutdown event shall not exceed 60 minutes
		3.B.20	Fuel Restriction	Burn only fuel that contains less than 2 grains per 100 SCF. Limited to natural gas only.
		3.B.21	Operational Restriction	Limited to 5500 hours/year operation
AA-001 AA-002 AA-003 AA-005 AA-006	40 CFR Part 72	3.B.11	SO ₂	Acid Rain Permit and regulation requirements.
AA-007	APC-S-1, Section 3.4(a)(1)	3.B.1	PM	0.6 lb/MMBTU
	APC-S-1, Section 4.1(a)	3.B.2	SO ₂	4.8 lb/MMBTU
	Prevention of Significant Deterioration Permit Issued on December 10, 2004	3.B.22	Fuel Restriction	Limited to Natural gas only

- 3.B.1 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. (Ref.: APC-S-1, Section 3.4(a) (1))
- 3.B.2 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. (Ref.: APC-S-1, Section 4.1(a))
- 3.B.3 For Emission Points AA-001 through AA-003, except as otherwise specified or limited herein, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations greater than 10 million BTU per hour heat input but less than 10,000 million BTU per hour heat input shall not exceed an emission rate as determined by the relationship

$$E = 0.8808(I)^{-0.1667}$$

Where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour. (Ref.: APC-S-1, Section 3.4(a) (2))

- 3.B.4 For Emission Points AA-001 through AA-003 and AA-005, the permittee shall burn natural gas and # 2 fuel oil only and neither shall contain sulfur in excess of 0.15 percent by weight. The standard for sulfur dioxide in 40 CFR 60.333(b) states that no owner or operator shall burn any fuel that contains sulfur in excess of 0.8 percent by weight. The emissions modeling that was done in order to determine the emission limits in the PSD permit issued for Emission Point AA-005 used a fuel oil with a maximum sulfur content of 0.15 percent by weight; therefore, the sulfur content of the fuel must not exceed 0.15 percent by weight. (Ref.: PSD Construction Permit issued April 9, 1996)
- 3.B.5 For Emission Point AA-005, the maximum emissions rate for PM and PM₁₀ while burning natural gas shall not exceed 8.1 lbs/hr with an annual limit of 16.5 TPY. The maximum emission rate for PM and PM₁₀ while burning # 2 fuel oil shall not exceed 195.4 lbs/hr with an annual limit of 47.0 TPY. (Ref.: PSD Construction Permit issued April 9, 1996)
- 3.B.6 For Emission Point AA-005, the maximum emission rate for SO₂ while burning natural gas shall not exceed 1.0 ppmdv at 15% O₂ while operating at 100% load with an annual limit of 0.98 TPY. The maximum emission rate for SO₂ while burning fuel oil shall not exceed 64.0 ppmdv at 15% O₂ while operating at 100% load with an annual limit of 39.8 TPY. (Ref.: PSD Construction Permit issued April 9, 1996)
- 3.B.7 For Emission Point AA-005, the maximum emission rate for NO_x while burning natural gas shall not exceed 15.0 ppmdv at 15% O₂ while operating at 100% load with an annual limit of 199.5 TPY. However, the maximum emission rate becomes 25.0 ppmdv at 15% O₂ during periods of power augmentation. Power augmentation will be limited to 100 hours of operation per year as described in the BACT analysis. The maximum emission rate for NO_x while burning fuel oil shall not exceed 42.0 ppmdv at 15% O₂ while operating at 100% load with an annual limit of 181.5 TPY.

The NO_x emission limits are governed by the equation listed in 40 CFR 60.332(a)(1) or the emission limits identified above, whichever is more stringent. The equation used to calculate NO_x emissions is as follows:

$$\text{STD} = 0.0075(14.4/Y) + F$$

Where STD is the allowable NO_x emission limit (percent by volume at 15% oxygen and on a dry basis), Y is the manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) where 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 60.332(a)(3).

In accordance with Section 60.332(f) of Subpart GG, the permittee is exempt from 60.332(a) when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine. Also, in accordance with 60.332(i), the permittee is exempt from the requirements of 60.332(a) when the Administrator grants an exception to the geographic area where mandatory water restrictions have been required by governmental agencies because of drought conditions. This exemption will be allowed only while the mandatory water restrictions are in effect. (Ref.: 40 CFR 60, Subpart GG & PSD Construction Permit issued April 9, 1996)

- 3.B.8 For Emission Point AA-005, the maximum emission rate for CO while burning natural gas shall not exceed 25.0 ppm_{dv} at 15% O₂ while operating at 100% load with an annual limit of 1,587 TPY. The maximum emission rate for CO while burning fuel oil shall not exceed 90.0 ppm_{dv} at 15% O₂ while operating at 100% load with an annual limit of 365.8 TPY. (Ref.: PSD Construction Permit issued April 9, 1996)
- 3.B.9 For Emission Point AA-005, the maximum emission rate for VOCs while burning natural gas shall not exceed 4.0 ppm_{dv} at 15% O₂ while operating at 100% load with an annual limit of 12.0 TPY. The maximum emission rate for VOCs while burning fuel oil shall not exceed 30.0 ppm_{dv} at 15% O₂ while operating at 100% load with an annual limit of 42.3 TPY. (Ref.: PSD Construction Permit issued April 9, 1996)
- 3.B.10 Emission Point AA-005 shall not be operated in excess of 3,000 hours during any 365-day period. Of that 3,000 hours, fuel oil may be fired for a maximum of 450 hours in the same 365-day period. (Ref.: PSD Construction Permit issued April 9, 1996)
- 3.B.11 For Emission Points AA-001, AA-002, AA-003, AA-005 and AA-006, the permittee is subject to and shall comply with all applicable requirements of the Acid Rain Program Regulations as specified in 40 CFR Parts 72-78. The Permittee shall comply with all applicable requirements of said standards as specified in the Acid Rain Permit attached to this permit in Appendix E. (Ref.: 40 CFR Parts 72-78)
- 3.B.12 For Emission Point AA-006, the maximum emission rate for CO shall not exceed 20 PPMV at 15% oxygen on a dry basis, and 54.0 lbs/hr, both limits are based on a 3-hour block average. The annual CO emission shall not exceed 148.1 tons/year. (Ref.: PSD Construction Permit issued December 10, 2004)

- 3.B.13 For Emission Point AA-006, the maximum emission rate for NO_x shall not exceed 9 PPMV at 15% oxygen on a dry basis, and 36.0 lbs/hr, both limits are based on a 3-hour operating rolling average. The annual NO_x emission shall not exceed and 99.0 tons/year. (Ref.: PSD Construction Permit issued December 10, 2004)
- 3.B.14 For Emission Point AA-006, the maximum emission rates for PM and PM₁₀ shall not exceed 10.0 lbs/hr and 27.5 tons/year. (Ref.: PSD Construction Permit issued December 10, 2004)
- 3.B.15 For Emission Point AA-006, the Opacity shall be ≤ 10% as determined by EPA Test Method 9, 40 CFR 60, Appendix A. (Ref.: PSD Construction Permit issued December 10, 2004)
- 3.B.16 For Emission Point AA-AA-006, unless otherwise specified herein, the averaging time for the short-term limits for all pollutants will default to the averaging period that is specified in the applicable EPA Reference Methods. (Ref.: PSD Construction Permit issued December 10, 2004)
- 3.B.17 For Emission Point AA-006, the permittee shall comply with the specified short-term (lbs/hr and ppm) emission limitations except during periods of startups and shutdowns. However, the permittee shall comply with the long-term tons/year emission limits to include emissions during periods of startup and shutdowns.

Turbine Startup is defined as that period of time from initiation of combustion firing until the unit reaches 75% load. Turbine Shutdown is defined as the period of time from 75% load to flame-out. A startup event shall not exceed sixty minutes and a shutdown event shall not exceed sixty minutes.

(Ref.: PSD Construction Permit modified on Month, Day, Year)

- 3.B.18 For Emission Point AA-006, the permittee shall operate the combustion turbine in a manner consistent with good air pollution control practices to minimize emissions during startup and shutdowns. This operation shall occur in accordance with the manufacturer's written instructions or other written instructions developed and maintained by the permittee onsite which shall include review of the operating parameters of the unit during startup or shutdowns as necessary to make adjustments to reduce or eliminate excess emissions. (Ref.: Construction Permit issued on December 10, 2004)
- 3.B.19 Emission Point AA-006 is subject to and shall comply with all applicable requirements of the New Source Performance Standards, as described in 40 CFR 60, Subpart A General Provisions and the Subpart GG - Standards of Performance for Stationary Gas Turbines.

The NO_x emission limits are governed by the equation listed in 40 CFR 60.332(a)(1) or the emission limits identified in Condition 3.B.11, whichever is more stringent. The equation used to calculate NO_x emissions is as follows:

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

Where STD is the allowable NO_x emission limit (percent by volume at 15% oxygen and on a dry basis), Y is the manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour)

where the value of Y shall not exceed 14.4 kilojoules per watt hour, and F is the NOX emission allowance for fuel-bound nitrogen as defined in 60.332(a)(3).

(Ref.: PSD Construction Permit issued December 10, 2004)

- 3.B.20 For Emission Point AA-006, the permittee shall not use any fuel other than natural gas. The permittee shall not burn any fuel which contains sulfur in excess of 2 grains per 100 dry standard cubic feet. (Ref.: Construction Permit issued on December 10, 2004)
- 3.B.21 For Emission Point AA-006, the permittee shall be limited to 5,500 hours/year per turbine on a 365 day rolling total. The hours of operation include startups and shutdowns. (Ref.: Construction Permit issued on December 10, 2004)
- 3.B.22 For Emission Point AA 007, the permittee shall not use any fuel other than natural gas. (Ref.: Construction Permit issued on December 10, 2004)
- 3.B.23 Emission Point AA-004 is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ. This unit is an existing emergency stationary RICE located at an area source of HAPs and is not required to meet the requirements of this standard or General Provisions, 40 CFR Part 63, Subpart A (Ref.: 40 CFR 63.6585 & 63.6590(b)(3))

C. Insignificant and Trivial Activity Emission Limitations & Standards

Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limit/Standard
APC-S-1, Section 3.4(a)(1)	3.C.1 & 1.19	PM	0.6 lbs/MMBTU or as otherwise limited by facility modification restrictions
APC-S-1, Section 4.1(a)	3.C.2 & 1.19	SO ₂	4.8 lbs/MMBTU or as otherwise limited by facility modification restrictions
APC-S-1, Section 3.6(a)	3.C.3	PM	$E = 4.1(p)^{0.67}$

- 3.C.1 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input.
- 3.C.2 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.
- 3.C.3 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission from any manufacturing process, in any one hour from any point source, particulate matter in total quantities in excess of the amount determined by the relationship

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

Where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hour . (Ref.: APC-S-1, Section 3.6(a))

SECTION 4. COMPLIANCE SCHEDULE

- 4.1 Unless otherwise specified herein, the permittee shall be in compliance with all requirements contained herein upon issuance of this permit.
- 4.2 Except as otherwise specified herein, the permittee shall submit to the Permit Board and to the Administrator of EPA Region IV a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, by January 31 for the preceding calendar year. Each compliance certification shall include the following:
- (a) the identification of each term or condition of the permit that is the basis of the certification;
 - (b) the compliance status;
 - (c) whether compliance was continuous or intermittent;
 - (d) the method(s) used for determining the compliance status of the source, currently and over the applicable reporting period;
 - (e) such other facts as may be specified as pertinent in specific conditions elsewhere in this permit. (Ref.: APC-S-6, Section III.C.5.a.,c.,&d.)
- 4.3 The permittee shall ensure that each continuous emission monitoring system is maintained according to the quality assurance and quality control procedures outlined in 40 CFR Part 75, Appendix B. The permittee shall conduct a relative accuracy test audit (RATA) for each monitor annually or semiannually, depend on upon the criteria outlined in Figure 2 of Appendix B.

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.
- 5.A.2 In addition to the recordkeeping specified below, the permittee shall include with all records of required monitoring information the following:
- (a) the date, place as defined in the permit, and time of sampling or measurements;
 - (b) the date(s) analyses were performed;
 - (c) the company or entity that performed the analyses;
 - (d) the analytical techniques or methods used;
 - (e) the results of such analyses; and
 - (f) the operating conditions existing at the time of sampling or measurement.
(Ref.: APC-S-6, Section III.A.3.b.(1)(a)-(f))
- 5.A.3 Except as otherwise specified herein, 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.: APC-S-6, Section III.A.3.b.(2))
- 5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31 and January 31 for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with APC-S-6, Section II.E. (Ref.: APC-S-6, Section III.A.3.c.(1))

- 5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) days of the time the deviation began. (Ref.: APC-S-6, Section III.A.3.c.(2))
- 5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements, if applicable. All test methods shall be those versions or their equivalents approved by the DEQ and the EPA.
- 5.A.7 The permittee shall maintain records of any alterations, additions, or changes in equipment or operation.

B. Specific Monitoring and Recordkeeping Requirements

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number	Applicable Requirement
AA-001 AA-002 AA-003 AA-004	Fuel Usage	Monitoring and Recordkeeping	5.B.1	Prevention of Significant Deterioration Permit Issued on April 9, 1996
AA-001 AA-002 AA-003 AA-005 AA-006	NO _x , SO ₂ , CO ₂ , Fuel Usage	Monitoring and Recordkeeping	5.B.2	40 CFR Part 75
AA-005	NO _x	Monitoring and Recordkeeping	5.B.3	40 CFR 60.334(a)
	SO ₂	Monitoring and Recordkeeping	5.B.4	40 CFR 60.334(b)
	Fuel Usage	Monitoring and Recordkeeping	5.B.5	Prevention of Significant Deterioration Permit issued on April 9, 1996
AA-006	CO, VOC, PM	Monitoring and Recordkeeping	5.B.14	Prevention of Significant Deterioration Permit issued on December 10, 2004
	NO _x , CO, SO ₂ ,	Monitoring and Recordkeeping	5.B.6 5.B.7 5.B.8 5.B.12 5.B.13	
	Hours of Operation	Monitoring and Recordkeeping	5.B.9 5.B.10	
	Startup/Shutdown	Monitoring and Recordkeeping	5.B.11 5.B.15	

- 5.B.1 For Emission Points AA-001 through AA-004, the permittee shall keep records of all fuels burned. These records shall consist of fuel type, quality and quantity, the sulfur content (% by weight), and the heating value (Btu/gal or Btu/ft³). (Ref.: APC-S-6, Section III.A.3)
- 5.B.2 For Emission Points AA-001, AA-002, AA-003, AA-005, and AA-006, the permittee shall keep records of the emissions identified in the table above in accordance with 40 CFR Part 75. The permittee shall maintain a file on site of all measurements, data, reports, and other information required in 40 CFR 75.54 for each affected unit for a period of three (3) years. (Ref.: 40 CFR Part 75)
- 5.B.3 For Emission Point AA-005, the permittee shall install and operate a NO_x continuous emission monitoring system (CEMS) in accordance with the EPA approved Alternative NO_x Excess Emission Monitoring Proposal which will satisfy the requirements of 40 CFR 60.334(a). To meet the requirements of this alternative monitoring plan, the permittee must:
- (a) ensure that the turbine meets the emission limitation (STD) determined according to 40 CFR 60.332. The “Y” value for the applicable equation and supporting documentation should be provided by the permittee and the limitation for NO_x emissions from pipeline quality natural gas should be fixed by EPA assuming the “F” value is zero.
 - (b) maintain, operate, and assure the quality of the system.
 - (c) ensure that the CEMS is capable of calculating NO_x emissions concentrations corrected to 15% O₂. The permittee shall ensure that the algorithm used by the Mark V control system on the GE Combustion Turbine satisfies the requirement for having to correct the NO_x concentration to ISO conditions.
 - (d) the monitor data availability shall be no less than 95% per calendar quarter
 - (e) the CEMS should provide at least 4 data points for each hour and calculate a 1-hour average.
- (Ref.: PSD Construction Permit issued April 9, 1996)
- 5.B.4 For Emission Point AA-005, the permittee shall monitor the sulfur content and nitrogen content of the fuel being fired. The permittee shall monitor the pipeline quality natural gas in accordance with the following EPA approved custom fuel monitoring plan:
- (a) The permittee may omit the monitoring of fuel nitrogen content while natural gas is the only fuel fired in the gas turbine.

- (b) The permittee shall ensure that a flow-proportional composite sampler be installed and operational.
- (c) The permittee shall analyze and monitor the sulfur content of the natural gas every six months using method ASTM D3246-81 or an equivalent method for measurement of total sulfur in gaseous fuels.
- (d) The permittee shall retain a file copy of all analyses for a period of five years. These analyses will serve as indicators of compliance with 40 CFR 60.333(b) as well as source of monthly Gross Calorimetric Values (GCVs) for use in hourly Heat Input equations of 40 CFR Part 75. The monthly provision of GCVs will continue at that frequency even after the frequency of total sulfur content decreases as outlined in (c).

In accordance with 40 CFR 60.334(b)(1), when the fuel being fired in the turbine is fuel oil, the permittee shall monitor the sulfur content and nitrogen content of the fuel oil on each occasion that fuel is transferred to the storage tank from any other source. (Ref.: PSD Construction Permit issued April 9, 1996)

- 5.B.5 For Emission Point AA-005, the permittee shall maintain daily records documenting hours of operation on the unit while burning natural gas and/or fuel oil. These records should be kept on a rolling 365-day period to ensure that the unit has not exceeded the 3,000 hours of total operation allowed during any 365-day period or the 450 hours of fuel oil firing allowed during any 365-day period. (Ref.: PSD Construction Permit issued April 9, 1996)
- 5.B.6 For Emission Point AA-006, the permittee shall demonstrate compliance with nitrogen oxide emission limitations using CEMs. Demonstrating compliance with NO_x limits using CEMs data in lieu of EPA Reference Methods is an acceptable practice provided that the permittee meets the guidelines established in EPA's general guidance on "Alternative Testing and Monitoring Procedures for Combustion Turbines Regulated under New Source Performance Standards". This includes use of reference method test data collected during the Relative Accuracy Test Audits (RATA) required under 40 CFR 75. (Ref.: APC-S-6, Section III.A.3)

- 5.B.7 For Emission Point AA-006, the permittee shall install, calibrate, maintain and operate continuous monitoring systems for NO_x (as specified in 40 CFR 60.334, Appendix B of 40 CFR 60 and 40 CFR 75), and O₂ (as specified in 40 CFR 60, Appendix B, and 40 CFR 75). These monitoring systems must comply with all applicable requirements specified in §60.334, §60.13, and Appendix B of 40 CFR 60 and 40 CFR 75. In addition, the permittee must comply with the reporting and recordkeeping requirements specified in 40 CFR 60, §60.7 and 40 CFR 75. In accordance with 40 CFR 75.62, the permittee shall submit the monitoring plan no later than 45 days prior to the initial certification test date. (Ref.: PSD Construction Permit issued December 10, 2004)
- 5.B.8 For Emission Point AA-006, the NO_x and O₂ CEM systems shall also be capable of and certified to accurately read/measure NO_x concentrations to comply with the tons/year limit. Within 60 days of the date of issuance of this permit, the permittee shall submit a data substitution protocol for the CEMs in case of malfunction to calculate the tons/year emissions for NO_x as specified. Within 90 days of approval of the protocol, the permittee will commence configuring the Data Acquisition Handling System (DAHS) in accordance with the approved protocol. The permittee will use this data to calculate the tons/year for NO_x. (Ref.: APC-S-6, Section III.A.3)
- 5.B.9 For Emission Point AA-006, the permittee shall monitor and record the hours of operation on a daily basis. The permittee shall also record the number and the duration of startups and shutdowns based on a 365 day rolling total. (Ref.: PSD Construction Permit issued December 10, 2004)
- 5.B.10 For Emission Point AA-006, the permittee shall demonstrate compliance with the tons/yr emission limitation for CO by using the following formula:
- $$\begin{aligned} & [135.3 \times \text{hours of operation in startup mode (in a 365 day rolling total)}] + \\ & [156.3 \times \text{hours of operation in shutdown mode (in a 365 day rolling total)}] + \\ & [54.0 \times \text{hours in normal operation (in a 365 day rolling total)}] / 2000 \end{aligned}$$
- (Ref.: APC-S-6, Section III.A.3)
- 5.B.11 For Emission Points AA-006, a record of all startups or shutdowns of the associated combustion turbine shall be kept and retained for a period of five (5) years and shall be made available to the Mississippi Department of Environmental Quality Office of Pollution Control, the Mississippi Environmental Quality Permit Board and/or their authorized representatives upon request. Such records shall include the time, date and duration of such startups and shutdowns and confirmation that good air pollution control practices were followed. (Ref.: PSD Construction Permit issued December 10, 2004)

- 5.B.12 For Emission Point AA-006, the permittee shall demonstrate compliance with the sulfur fuel limitation by using the EPA approved custom fuel monitoring plan. (Ref.: APC-S-6, Section III.A.3)
- 5.B.13 For Emission Point AA-006, the permittee shall demonstrate compliance with carbon monoxide emission limitations by stack testing in accordance with EPA Reference Method 10 or an approved equivalent and submittal of a stack test within 180 days of permit issuance and biennially thereafter.

The permittee shall submit a written test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the Office of Pollution Control. Also, the Office of Pollution Control must be notified prior to the scheduled test date. At least ten (10) days notice should be given so that an observer may be scheduled to witness the test(s). (Ref.: APC-S-6, Section III.A.3)

- 5.B.14 For Emission Point AA-005, the permittee shall demonstrate compliance with Volatile Organic Compounds (VOC) emission limitations using EPA Methods 18 and 25, Particulate Matter (PM) emission limitations using EPA Methods 1-5 and Carbon Monoxide emission limitations using EPA Method 10 by stack testing and submittal of a stack test report once within the life of this permit while firing each fuel. Stack testing for fuel oil use is not required when the unit is not firing fuel oil. Stack testing shall be performed under normal operating conditions and while operating at or near capacity, defined as within 5% of the maximum rated capacity (100% load). EPA approved test methods or their approved equivalent shall be used to perform test.

The permittee shall submit a written test protocol at least thirty (30) days prior to the proposed test date to ensure that all test methods and procedures are acceptable to the Office of Pollution Control. Also, the Office of Pollution Control must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). (Ref.: APC-S-6, Section III.A.3)

- 5.B.15 The permittee shall submit the startup and shutdown duration information as specified in 40 CFR 60, 60.7 and 40 CFR 75 (Ref.: PSD Construction Permit Modified on Month, Day, Year)

C. Specific Reporting Requirements

Emission Point(s)	Pollutant/Parameter Monitored	Reporting Requirement	Condition Number	Applicable Requirement
AA-001 AA-002 AA-003 AA-004 AA-005 AA-006	Fuels Burned	Quarterly Report	5.C.1	APC-S-6 Section III.A.3.c(1)
AA-001 AA-002 AA-003 AA-005	NO _x SO ₂	Annual Report	5.C.2	40 CFR Part 72.90(b)
AA-005	NO _x	Quarterly Report	5.C.3	40 CFR 60.334(c)(1)
	SO ₂	Quarterly Report	5.C.4	40 CFR 60.334(c)(2)
	Fuel Usage	Semi-Annual Report	5.C.5	Prevention of Significant Deterioration Permit issued on April 9, 1996
AA-005	PM, VOC, CO	Report once in life of permit	5.C.11	Prevention of Significant Deterioration Permit issued on April 9, 1996
AA-006	NO _x	Semi-Annual Report	5.C.6 5.C.7	Prevention of Significant Deterioration Permit issued on December 10, 2004
	CO	Semi-Annual Report	5.C.8 5.C.11	
	Hours of Operation	Semi-Annual Report	5.C.10	

- 5.C.1 For Emission Points AA-001 through AA-004, the permittee shall submit a quarterly fuel usage report. This report should include the type of fuels burned, quantity, and quality, the sulfur content (% by weight), and the heating value (Btu/gal or Btu/ft³).
- 5.C.2 For each calendar year that an affected unit is subject to the Acid Rain Program, the permittee shall submit an annual compliance certification report to the Administrator within sixty (60) days after the end of the calendar year. The contents of the report shall be in accordance with 40 CFR 72.90(b).
- 5.C.3 For Emission Point AA-005, the permittee shall submit an excess emissions report and monitoring systems report and/or a summary report form to the DEQ on a quarterly basis. If there are no excess emissions recorded during the quarter, the report shall be submitted semiannually. The report shall be postmarked by the 30th day following the end of each reporting period. This report should include the information required in 40 CFR 60.7(c) and (d) as well as the content of nitrogen in fuel oil for each reporting period when oil is fired and a clearly calculated corresponding emission limitation (STD).
- 5.C.4 For Emission Point AA-005, the permittee shall submit a quarterly report for any daily period in which the sulfur content of the fuel being fired exceeds 0.15 percent. If the sulfur content of the fuel does not exceed 0.15 percent during the quarter, the report shall be submitted semiannually.
- 5.C.5 For Emission Point AA-005, the permittee shall submit a report in accordance with Condition 5.A.4 summarizing the unit's total hours of operation for each day and for each rolling 365-day period. The report should also include the total hours of operation for each day and each rolling 365-day period in which fuel oil is being fired in the turbine.
- 5.C.6 For Emission Point AA-006, the permittee shall submit semi-annual reports summarizing the emissions in tons/year of NO_x based on CEMS data for each consecutive 365-day rolling total as specified in Condition 5.A.4.
- 5.C.7 For Emission Point AA-006, the permittee shall submit semi-annual reports on the nitrogen oxides excess emission and monitoring system identifying any excess emissions (both lb/hr and ppm) and monitor downtime, as specified in Condition 5.A.4.
- 5.C.8 For Emission Point AA-006, the permittee shall submit semi-annual reports summarizing the tons/year of CO emitted for consecutive each 365-day period, as specified in Condition 5.A.4.
- 5.C.9 For Emission Point AA-006, the permittee shall submit the startup and shutdown duration time deviations and the total startup and shutdown percent deviations as specified in Condition 5.A.4.

- 5.C.10 For Emission Point AA-006, the permittee shall submit semi-annual reports which summarize hours of operation for each consecutive 365-day period as specified in Condition 5.A.4.
- 5.C.11 For Emission Point AA-005 and AA-006, the permittee shall submit the written reports of all required stack testing results within sixty (60) days of the date the test are performed.

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

- 6.1 None permitted.

SECTION 7. TITLE VI REQUIREMENTS

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

- 7.1 If the permittee stores or transports class I or class II substances, the permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
- (a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if being introduced into interstate commerce pursuant to § 82.106.
 - (b) The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
 - (c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - (d) No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
- 7.2 If the permittee performs any of the activities described below, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
 - (b) Equipment used during the maintenance, service, repair, or disposal of appliance must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
 - (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
 - (d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the recordkeeping requirements pursuant to § 82.166. (MVAC - like appliance" is defined at §82.152.)

- (e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - (f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
- 7.3 If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 7.4 If the permittee performs a service on motor (fleet) vehicles and if this service involves an ozone-depleting substance (refrigerant) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
- The term motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term MVAC" as used in Subpart B does not include air-tight sealed refrigeration systems used for refrigerated cargo, or air conditioning systems on passenger buses using HCFC-22 refrigerant.
- 7.5 The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.

SECTION 8. ACID RAIN REQUIREMENTS

- 8.1 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 DEQ during the permitted period.

APPENDIX A

List of Abbreviations Used In this Permit

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

APPENDIX B

List of Regulations Referenced in this Permit

APC-S-1 Mississippi Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants

APC-S-6 Mississippi Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Air Emissions Operating Permit Regulations for the Purpose of Title V of the Federal Clean Air Act

Title VI of the Clean Air Act – Stratospheric Ozone Protection

Title IV of the Clean Air Act – Acid Rain Regulation

40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR 60.7 Subpart A – Standards of Performance for New Stationary Source General Provisions Notification and Recordkeeping

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

The full text of the regulations referenced in this permit may be found on-line at <http://ecfr.gpoaccess.gov> under Title 40, or MDEQ will provide a copy upon request from the permittee.

APPENDIX C

PHASE II ACID RAIN PERMIT

ACID RAIN PERMIT

Issued to: Moselle Generating Plant
Operated by: South MS Electric Power Association
ORIS code: 2070
Effective: [TVOP Issuance Date] through [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 DEQ. This is the initial permitting action being undertaken:


- | | |
|--|--------------------|
| 1) Draft permit for public and EPA comment | October 24, 1997 |
| 2) Final permit issued. | December 30, 1997 |
| 3) Draft permit for public and EPA comment for permit renewal. | November 22, 2003 |
| 4) Permit issuance. | March 12, 2004 |
| 5) Permit modified to include the addition of Unit 5; issued for public comment. | May 10, 2005 |
| 6) Permit modified | June 29, 2005 |
| 7) 2 ND Draft Permit sent to Public Notice and EPA Review | September 22, 2009 |

Present Action:

- 1) Final Permit Issued [TVOP ISSUANCE DATE]

Signature

Date


12/17/09
Harry M. Wilson III, P.E., DEE
Chief, Environmental Permits Division
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, MS 39225
Telephone: (601) 961-5171 Facsimile: (601) 961-5703

ACID RAIN PERMIT

Issued to: Moselle Generating Plant
Operated by: South MS Electric Power Association
ORIS code: 2070
Effective: [TVOP Issuance Date] through [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, Regulation APC-S-6, and the State of Mississippi Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act, Regulation APC-S-7.

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

		2009	2010	2011	2012	2013	2014
Unit 1	SO₂	35	33	33	33	33	33
Unit 2	allowances	76	70	70	70	70	70
Unit 3	, under	42	38	38	38	38	38
Unit 4	Tables 2,3,	0	0	0	0	0	0
Unit 5	or 4 of 40	0	0	0	0	0	0
	CFR Part						
	73						
	NO_x Limit	NA	NA	NA	NA	NA	NA

3. COMMENTS, NOTES AND JUSTIFICATIONS: All affected units are natural gas/#2 fuel oil fired units; therefore, the affected units are not subject to the NO_x requirements outlined in 40 CFR Part 76.

4. PERMIT APPLICATION: Attached

APPENDIX D

PHASE II ACID RAIN PERMIT APPLICATION