STATE OF MISSISSIPPI
AIR POLLUTION CONTROL PERMIT

AND PREVENTION OF SIGNIFICANT DETERIORATION AUTHORITY TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Entergy Mississippi Inc, Hinds County Plant
3889 Beasley Road
Jackson, Hinds, Mississippi

has been granted permission to construct air emissions equipment to comply with emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with 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 and under authority granted by the Environmental Protection Agency under 40 CFR 52.01 and 52.21.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: January 7, 2000

Modified: November 7, 2001, May 13, 2004 and DEC 10 2012

Permit No.: 1080-00230

12051 PER20120002

PART I
GENERAL CONDITIONS

1. **Any activities not identified in the application are not authorized by this permit.**

2. **All air pollution control facilities shall be designed and constructed such as to allow proper operation and maintenance of the facilities.**

3. **The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits.**

4. **The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except as provided for in Regulation APC-S-1, "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10.**

5. **The construction of facilities shall be performed in such a manner as to reduce both point source and fugitive dust emissions to a minimum.**

6. **The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:**

   a. **To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and**

   b. **At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emissions.**

7. **After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:**

   a. **Violation of any terms or conditions of this permit.**

   b. **Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, or**

   c. **A change in any condition that requires either a temporary or permanent reduction or elimination of authorized air emissions.**

8. **Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control.**

9. **The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.**

10. **Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.**

11. **This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board.**

12. **This permit is for air pollution control purposes only.**

13. **Approval to construct will expire should construction not begin within eighteen (18) months of the issuance of this permit, or should construction be suspended for eighteen (18) months.**

14. **Prior to startup of air emissions equipment at this source, the permittee must obtain a Permit to Operate and submit certification that construction was completed in accordance with the approved plans and specifications.**

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning May 13, 2004, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-001, the 1732.6 MMBTU/hr combustion turbine with heat recovery steam generator (HRSG) and a dry low NO_x burner for control of NO_x emissions (Generating Unit, 001).

Selective catalytic reduction (SCR) will be included for control of NOx emissions and operated when the unit is operating in Mode 6 condition.

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

These emission points are subject to the Acid Rain Program Regulations as specified in 40 CFR 72-78, and the permittee must comply with all applicable requirements of said standards.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

Particulate Matter	**18 lbs/hr and 79 tons/year, as determined by EPA Reference Methods 1-5, 40 CFR 60, Appendix A.**
PM_{10}	**18 lbs/hr and 79 tons/year as determined by EPA Reference Method 201 or 201A in conjunction with Reference Method 202, 40 CFR 51, Appendix M.**
Sulfur Dioxide	**11 lbs/hr and 48.18 tons/year, as determined by EPA Reference Method 6C, 40 CFR 60, Appendix A.**
Nitrogen Oxides	**3.5 PPM at 15% oxygen on a dry basis, not to exceed 25 lbs/hr, both limits are based on a 24-hour rolling average, and 110 tons/year, as determined by EPA Reference Method 20, 40 CFR 60, Appendix A.**
Carbon Monoxide	**20 PPM at 15% oxygen on a dry basis, not to exceed 69 lbs/hr, both limits are based on a 24-hour rolling average, and 302.22 tons/year, as determined by EPA Reference Method 10, 40 CFR 60, Appendix A.**

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS
Continued

Opacity	**10% as determined by EPA Reference Method 9, 40 CFR 60, Appendix A.**

The permittee shall comply with the emission limitations and monitoring requirements specified in this permit ,except during periods of startup and shutdowns. However, the permittee shall meet with the tons/year emission limits to include emissions during periods of startup and shutdown.
A startup event shall not exceed 4.2 hour duration and a shutdown event shall not exceed a 1.0 hour duration. A period of startup is defined as commencing when fuel is first combusted in the combustion turbine, and ending upon initiation of dry low NO_x operation as indicated by receipt of a Mode 6 signal from the turbine control system. Shutdown shall be defined as the period beginning when the combustion turbine leaves operational Mode 6 and ending when combustion has ceased. The permittee shall monitor and maintain records of the duration of time this Emission Point engages in periods of both startups and shutdowns.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect January 7, 2000.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning May 13, 2004, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-002, the 1732.6 MMBTU/hr combustion turbine with heat recovery steam generator (HRSG) and a dry low NO_x burner for control of NO_x emissions (Generating Unit, 002).

Selective catalytic reduction (SCR) will be included for control of NOx emissions and operated when the unit is operating in Mode 6 condition.

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

These emission points are subject to the Acid Rain Program Regulations as specified in 40 CFR 72-78, and the permittee must comply with all applicable requirements of said standards.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

Particulate Matter	**18 lbs/hr and 79 tons/year, as determined by EPA Reference Methods 1-5, 40 CFR 60, Appendix A.**
PM_{10}	**18 lbs/hr and 79 tons/year as determined by EPA Reference Method 201 or 201A in conjunction with Reference Method 202, 40 CFR 51, Appendix M.**
Sulfur Dioxide	**11 lbs/hr and 48.18 tons/year, as determined by EPA Reference Method 6C, 40 CFR 60, Appendix A.**
Nitrogen Oxides	**3.5 PPM at 15% oxygen on a dry basis, not to exceed 25 lbs/hr, both limits are based on a 24-hour rolling average, and 110 tons/year, as determined by EPA Reference Method 20, 40 CFR 60, Appendix A.**
Carbon Monoxide	**20 PPM at 15% oxygen on a dry basis, not to exceed 69 lbs/hr, both limits are based on a 24-hour rolling average, and 302.22 tons/year, as determined by EPA Reference Method 10, 40 CFR 60, Appendix A.**

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS
Continued

Opacity	**10% as determined by EPA Reference Method 9, 40 CFR 60, Appendix A.**

The permittee shall comply with the emission limitations and monitoring requirements specified in this permit ,except during periods of startup and shutdowns. However, the permittee shall meet with the tons/year emission limits to include emissions during periods of startup and shutdown.
A startup event shall not exceed 4.2 hour duration and a shutdown event shall not exceed a 1.0 hour duration. A period of startup is defined as commencing when fuel is first combusted in the combustion turbine, and ending upon initiation of dry low NO_x operation as indicated by receipt of a Mode 6 signal from the turbine control system. Shutdown shall be defined as the period beginning when the combustion turbine leaves operational Mode 6 and ending when combustion has ceased. The permittee shall monitor and maintain records of the duration of time this Emission Point engages in periods of both startups and shutdowns.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect January 7, 2000.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning November 7, 2001, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-003, the 22 MMBTU/hr natural gas fired auxiliary boiler.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

Opacity	**40% as determined by EPA Reference Method 9, 40 CFR 60, Appendix A.**

The permittee is restricted to heat input on an annual basis per Part III, (2) of this permit.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect January 7, 2000.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning January 7, 2000, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-004, the 400 HP fire water pump engine.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

Opacity	**40% as determined by EPA Reference Method 9, 40 CFR 60, Appendix A.**

All test methods specified above shall be those versions, or their approved equivalents, which are in effect January 7, 2000.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning January 7, 2000, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-005, the 9 cell cooling tower.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

Opacity	**40% as determined by EPA Reference Method 9, 40 CFR 60, Appendix A.**

All test methods specified above shall be those versions, or their approved equivalents, which are in effect January 7, 2000.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning November 7, 2001, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-006, 587 HP diesel fuel-fired backup generator.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

Opacity	**40% as determined by EPA Reference Method 9, 40 CFR 60, Appendix A.**

All test methods specified above shall be those versions, or their approved equivalents, which are in effect November 7, 2001.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning January 7, 2000, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from the storage tanks listed below:

Emission Point	Tank Size (Gallons)	Tank Contents	Tank Type
AB-001	6,000	Sulfuric Acid	Fixed Roof
AB-002	150	Diesel	Fixed Roof

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning November 7, 2001, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from the storage tanks listed below:

Emission Point	Tank Size (Gallons)	Tank Contents	Tank Type
AB-003	700	Diesel	Fixed Roof

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning November 7, 2001, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-007, the 1.5 MMBTU/hr natural gas-fired fuel gas preheater.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

Opacity	**40% as determined by EPA Reference Method 9, 40 CFR 60, Appendix A.**

All test methods specified above shall be those versions, or their approved equivalents, which are in effect November 7, 2001.

PART III
OTHER REQUIREMENTS

(1) The combustion turbines, associated with Emission Points AA-001 and AA-002, are subject to and shall comply with all applicable requirements of the New Source Performance Standards, as described in 40 CFR 60, Subpart A - General Provisions, and the specific requirements outlined in 60.330, Subpart GG - Standards of Performance for Stationary Gas Turbines.

(3) **Emission point AA-003 is limited to a heat input rate not to exceed 87,871 MMBTU per year measured on a 12 month rolling total.**.

(3) For Emission Point AA-001, and AA-003, the permittee shall not burn any fuel which contains sulfur in excess of 0.8 percent by weight. The permittee shall not use any fuel other than natural gas.

(4) For emission point AA-006, the permittee is limited to 500 hours of operation per year, measured on a rolling 12-month total.

Specific Monitoring and Recordkeeping Requirements

(5) For Emission Points AA-001, and AA-002, the permittee shall demonstrate compliance with nitrogen oxides, and carbon monoxide emission limitations using CEMS. Demonstrating compliance with NO_X and CO limits using CEMs data in lieu of EPA Reference Methods is an acceptable practice provided that the permittee meets the guidelines established in EPA's general guidance on "Alternative Testing and Monitoring Procedures for Combustion Turbines Regulated under New Source Performance Standards". This includes use of reference method test data collected during the Relative Accuracy Test Audits (RATA) required under 40 CFR 75.

(6) For Emission Points AA-001, and AA-002, the permittee shall install, calibrate, maintain and operate continuous monitoring systems for NO_X (as specified in 40 CFR 60.334, Appendix B and 40 CFR 75), The monitoring systems must comply with all applicable requirements specified in 60.334, 60.13, and Appendix B of 40 CFR 60 and 40 CFR 75. In addition, the permittee must comply with the reporting and recordkeeping requirements specified in 40 CFR 60.7 and 40 CFR 75.

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

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

(7) These NO_X, CO, and O_2 CEM systems shall also be capable of and certified to accurately read/measure NO_X and CO concentrations to comply with the tons/year limit. Within 60 days of the date of modification, the permittee shall submit a data substitution protocol for the CEMs in case of malfunction to calculate the tons/year emissions for NOx and CO as specified. Within 90 days of approval of the protocol, the permittee will commence configuring the Data Acquisition Handling System (DAHS) in accordance with the approved protocol. The permittee will use this data to calculate the tons/year for NOx and CO.

(8) For Emission Points AA-001, and AA-002, the permittee shall monitor and maintain records of the duration of time each emission point engages in periods of both startups and shutdowns. The permittee shall operate the combustion turbines in a manner consistent with good combustion practices, in accordance with the manufacturer's guidelines and procedures to minimize emissions during startup and shutdown.

(9) For Emission Points AA-001, and AA-002, the permittee shall monitor the sulfur content of the fuel being fired in the turbines. The frequency of determination of this value shall be as specified in the approved custom fuel monitoring schedule. The custom fuel monitoring schedule was proposed by letter dated March 26, 2001, and approved by MDEQ by letter dated April 12, 2002, and is as follows:

a) As of the date of this letter, sulfur monitoring will be conducted twice a month for six months. If the data shows little variability and compliance with 40 CFR, Section 60.333, then the monitoring frequency will change to once per quarter for six quarters. Again, if data shows consistency and is in compliance with 60.333, the

monitoring frequency will change to twice per year during the first and third quarters of each calendar year.

b) If at any time the monitoring data indicates non-compliance with 40 CFR 60.333, Hinds will notify the state to re-evaluate the fuel monitoring schedule.

c) Hinds will maintain records of sulfur monitoring and calculations to demonstrate compliance with 40 CFR 60.333 for a period of three years.

(10) For Emission Points AA-003, the permittee shall maintain records detailing the total heat input rate on a 12 month rolling total.

(11) For Emission Point AA-003, the permittee shall record and maintain records of the amounts of fuel combusted during each day. (Ref: 40 CFR 60.48c(g))

(12) For Emission Points AA-006, the permittee shall maintain records detailing the hours of operation on a monthly basis and on a 12-month rolling total.

(13) For Emission Points AA-001 and AA-002, the permittee shall monitor the sulfur content of the fuel being fired in accordance with the EPA approved custom fuel monitoring plan. (Re.:40 CFR Part 60, Subpart GG, Section 60.334(b))

(14) These records shall be kept on site and made available to the Office of Pollution Control personnel upon request.

Specific Reporting Requirements

(15) For Emission Points AA-001, and AA-002, the permittee shall submit semi-annual reports summarizing the results of the NO_X and CO emission rates in tons/year based on a 365 day rolling total. This report is due be January 31 and July 31 of each calendar year.

(16) For Emission Points AA-003, the permittee shall submit semiannual reports showing the total heat input in MMBTU on a monthly basis and on a 12-month rolling total. This report is due be January 31 and July 31 of each calendar year.

(17) For Emission Points AA-006, the permittee shall submit semiannual reports showing the number of hours the emission points were operated on a monthly basis and on a 12 month rolling total. For Emission Points AA-001 and AA-002, the permittee shall submit semi-annually nitrogen oxides and carbon monoxide excess emission and monitoring system report to the DEQ identifying any excess emissions (for both lb/hr and ppm number) and monitor downtime that occurred during that period. This report is due be January 31 and July 31 of each calendar year.

(18) For Emission Points AA-001, and AA-002, the permittee shall submit the startup and shutdown duration time deviations and the total startup and shutdown percent deviations during the reporting period. This report is due be January 31 and July 31 of each calendar year.