STATE OF MISSISSIPPI
AIR POLLUTION CONTROL PERMIT

AND PREVENTION OF SIGNIFICANT DETERIORATION AUTHORITY TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Mississippi Power Company, Kemper IGCC Facility
5835 Highway 493
Kemper County, 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: October 22, 2008

Permit No.: 1380-00017

Modified: March 9, 2010 and October 24, 2012

Part I

A. GENERAL CONDITIONS

1. This permit is for air pollution control purposes only. (Ref.: APC-S-2, Section I.D)

2. Any activities not identified in the application are not authorized by this permit. (Ref.: Miss. Code Ann. 49-17-29 1.b)

3. The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for operating without a valid permit pursuant to State Law. (Ref.: APC-S-2, Section II.B.5)

4. It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits. (Ref.: APC-S-2, Section I.D.6)

5. The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities. (Ref.: APC-S-2, Section II.B.7)

6. 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 the permit, unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. (Ref.: APC-S-2, Section II.B.15(a))

7. The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. 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-2, Section II.B.15(b))

8. The permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: APC-S-2, Section II.B.15(c))

9. 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 permit or, for information claimed to be confidential, the permittee shall furnish such records to the 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-2, Section II.B.15(d))

10. Design and Construction Requirements: The stationary source shall be designed and constructed so as to operate without causing a violation of an Applicable Rules and Regulations, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries. (Ref.: APC-S-2, Section V.A)

11. Solids Removal: 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. (Ref.: Miss. Code Ann. 49-17-29)

12. Diversion and Bypass of Air Pollution Controls: 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. (Ref.: APC-S-1, Section 10)

13. Fugitive Dust Emissions from Construction Activities: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum. (Ref.: APC-S-2, Section V.A.4)

14. Right of Entry: 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. (Ref.: Miss. Code Ann. 49-17-21)

15. Permit Modification or Revocation: After notice and opportunity for a hearing, the Permit Board may modify the permit or revoke it in whole or in part for good cause shown including, but not limited to:

    a) Persistent violation of any of the 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 federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission.

(Ref.: APC-S-2, Section II.C)

16. Public Record and Confidential Information: 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. (Ref.: Miss. Code Ann. 49-17-39)

17. Permit Transfer: This permit shall not be transferred except upon approval of the Permit Board. (Ref.: APC-S-2, Section XVI.B)

18. Severability: The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the 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-2, Section I.D.7)

19. Permit Expiration: The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: APC-S-2, Section V.C.1)

20. Certification of Construction: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee. (Ref.: APC-S-2, Section V.D.3)

21. Beginning Operation: Except as prohibited in Part I, Condition 24 of this permit, after certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by APC-S-2, Section XIII.G. (Ref.: APC-S-2, Section V.D.4)

22. Application for a Permit to Operate: Except as otherwise specified in Part I, Condition 24 of this permit, the application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon

certification of construction, unless the permittee specifies differently in writing. (Ref.: APC-S-2, Section V.D.5)

23. Operating Under a Permit to Construct: Except as otherwise specified in Part I, Condition 24 of this permit, upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate. (Ref.: APC-S-2, Section V.D.6)

24. Application Requirements for a Permit to Operate for Moderate Modifications: For moderate modifications that require contemporaneous enforceable emissions reductions from more than one emission point in order to "net" out of PSD/NSR, the applicable Title V Permit to Operate or State Permit to Operate must be modified prior to beginning operation of the modified facilities. (Ref.: APC-S-2, Section V.D.7)

25. Compliance Testing: Regarding compliance testing:

    a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.

    b) Compliance testing will be performed at the expense of the permittee.

    c) Each emission sampling and analysis report shall include but not be limited to the following:

        (1) detailed description of testing procedures;

        (2) sample calculation(s);

        (3) results; and

        (4) comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.

    (Ref.: APC-S-2, Section VI.B.3, 4, and 6)

26. Provisions for Upsets, Startups, and Shutdowns: Except as otherwise provided herein, the permittee shall be subject to the provisions for upsets, startups, shutdowns and maintenance as outline in APC-S-1, Section 10.

B. GENERAL NOTIFICATION REQUIREMENTS

1. Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun. (Ref.: APC-S-2, Section V.C.2)

2. The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: APC-S-2, Section V.C.3)

3. Upon the completion of construction or installation of an approved stationary source or modification, the applicant shall notify the Permit Board that construction or installation was performed in accordance with the approved plans and specifications on file with the Permit Board. (Ref.: APC-S-2, Section V.D.1)

4. The Permit Board shall be promptly notified in writing of any change in construction from the previously approved plans and specifications or permit. If the Permit Board determines the changes are substantial, it may require the submission of a new application to construct with “as built” plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an “as built” application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law. (Ref.: APC-S-2, Section V.D.2)

PART II
EMISSION POINT DESCRIPTION

The permittee is authorized to construct air emissions equipment for the emission of air contaminants from the emission points described as follows:

Emission Point	Description
AA-000	Coal Gasification Operations
AA-001	Gasifier Startup Stack #1 with a nominal 55 MMBTU/hr natural gas/propane/fuel oil fired burner
AA-002	Gasifier Startup Stack # 2 with a nominal 55 MMBTU/hr natural gas/propane/fuel oil fired burner
AA-003	Flare Derrick equipped with natural gas/propane pilots
AA-004	Acid Gas Removal (AGR) Process Startup/Shutdown Vents #1
AA-005	Acid Gas Removal (AGR) Process Startup/Shutdown Vents #2
AA-006	Nominal 285 MMBTU/hr natural gas/propane fired Auxiliary Boiler with low NOx Burners
AA-007	Wet gas Sulfuric Acid (WSA) Process Stack
AB-000	Combustion Turbine Operations
AB-001	Nominal 3175 MMBTU/hr syngas and natural gas fired Integrated Gasification and Combined Cycle Generation Unit 1 with a Heat Recovery Steam Generator and a nominal 910 MMBTU/hr natural gas fired Duct Burner and AGR process venting. When combusting natural gas, emissions are controlled by a selective catalytic reduction (SCR) unit and steam or water injection.
AB-002	Nominal 3175 MMBTU/hr syngas and natural gas fired Integrated Gasification and Combined Cycle Generation Unit 1 with a Heat Recovery Steam Generator and a nominal 910 MMBTU/hr natural gas fired Duct Burner and AGR process venting. When combusting natural gas, emissions are controlled by a selective catalytic reduction (SCR) unit and steam or water injection.
AC-000	Ancillary Equipment
AC-001	Multi-Cell Cooling Tower #1
AC-002	Multi-Cell Cooling Tower #2
AC-003	Two (2) nominal 200 HP diesel fuel fired Emergency Fire Pumps
AD-000	Coal/Lignite Handling Operations
AD-001	Crushed Coal Storage Silos controlled by a baghouse
AD-002	Coal Milling and Drying #1 controlled by a baghouse
AD-003	Coal Milling and Drying #2 controlled by a baghouse
AD-004	Coal Milling and Drying #3 controlled by a baghouse
AD-005	Coal Milling and Drying #4 controlled by a baghouse
AD-006	Coal Milling and Drying #5 controlled by a baghouse
AD-007	Coal Milling and Drying #6 controlled by a baghouse

AD-008	Open Coal Storage Piles (including equipment used in the loading, unloading, and conveying of operations of the open storage pile)
AD-009	Miscellaneous Coal Processing and Conveying Equipment and Storage (including Primary Sizer, Secondary Sizer, Conveyor 1, Conveyor 2, Conveyor 3, Transfer Buildings 1 & 2, and Active Storage Pile)

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Points AA-000, the Gasification System.

OPERATIONAL RESTRICTIONS

For Emission Points AA-000, the permittee shall install, operate, and maintain a mercury removal system to remove mercury from the synthesis gas prior to combustion in the turbines capable of complying with the National Emission Standards for Hazardous Air Pollutants: Coal and Oil-Fired Electric Utility Steam Generating Units, 40 CFR Part 63, Subpart UUUUU.

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Points AA-001 and AA-002, the Gasifier Startup Stacks #1 and #2, each with an associated nominal 55 MMBTU/hr natural gas/propane/fuel oil fired burner.

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

EMISSIONS LIMITATIONS

Opacity	20% as determined by EPA Test Method 9, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

STARTUP REQUIREMENTS

During startup of the gasifiers, the initial flue gas that is generated with minimal heating value shall be vented to the gasifier startup stack after passing through the particulate filtration system. As soon as possible, upon nearing gasification conditions within the gasifiers, the exhaust flue gas shall be directed to the flare derrick (Emission Point AA-003) and not to the startup stacks.

For Emission Points AA-001 and AA-002, the permittee shall not use any fuel other than pipeline quality natural gas, propane, or ultra-low sulfur diesel fuel in the startup stack burners. Ultra-low sulfur diesel fuel shall not have in excess of 15 ppm sulfur in the fuel.

Beginning upon initial startup of the gasifiers, the permittee shall monitor and maintain records of gasifier startups. The records shall include the time, date and durations of each gasifier startup and the type and quantity of fuel combusted in the startup burners. Initial startup for these emission points shall be defined as the time when synthesis gas produced in the gasifier is first combusted in the combustion turbine.

The permittee shall utilize the data gathered from gasifier startup recordkeeping the first twelve (12) months of normal operation to establish BACT for the Gasifier Startup Stacks during gasifier startups. The permittee shall submit this information to the Department within 60 days following this period. The PSD Permit will then be modified to include the revised BACT for periods of gasifier startup.

When using ultra-low sulfur diesel fuel, the permittee shall maintain a log of the sulfur content measurement for the fuel. The permittee may use fuel supplier certifications to demonstrate the sulfur content. The fuel supplier certifications shall include the name of the fuel supplier and the sulfur content of the fuel.

REPORTING REQUIREMENTS

After initial startup of Emission Points AA-001 and AA-002, the permittee shall submit semi-annual reports summarizing the number and duration of the startup events recorded for the previous 12-month period and the type and quantity of fuel used in the burners. The report shall include a certified statement that the sulfur content for the ultra-low sulfur diesel fuel is being met.

The reports shall be due by January 31 and July 31 of each calendar year.

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point AA-003, the flare derrick equipped with natural gas or propane fired pilots with a total nominal rating of 6 MMBTU/hr.

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

EMISSIONS LIMITATIONS (during Normal Operations of Gasifier)

Carbon Monoxide	24.3 lbs/hr and 106.5 tons/year, as determined by an approved gas monitoring plan.
Nitrogen Oxides	30.3 lbs/hr and 133.0 tons/year, as determined by an approved gas monitoring plan.
Sulfur Dioxide	45 lbs/hr and 197.1 tons/year, as determined by an approved gas monitoring plan.
Opacity	0% , except for periods not to exceed a total of 5 minutes during any 2 consecutive hours as determined by EPA Test Method 22, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

STARTUP/SHUTDOWN REQUIREMENTS

The emission limits during normal operations of the gasifier do not apply during startup or shutdowns of the gasifier. Flaring during gasifier startup shall take place only until synthesis gas production can properly support operation of the combustion turbine. For purposes of this provision, flaring during gasifier startup means flaring during the period beginning with transition of exhaust gases from the startup stack to the flares until transition of syngas to the combustion turbine is complete.

During gasifier shutdown, synthesis gas and other process gases purged from the gasifiers shall be directed to the flare derrick. For purposes of this provision, gasifier shutdown means the period beginning when coal flow is discontinued to the gasifier until purging of the gasifier is complete.

Beginning upon initial startup, the permittee shall monitor and maintain records of flare derrick usage during times of gasifier startups and shutdowns. The records shall include the time, date and duration of time that exhaust gas from the gasifier related to startup and shutdown operations are vented to the flare derrick. Initial startup for this emission point shall be defined as the time when synthesis gas produced in the gasifier is first combusted in the combustion turbine.

The permittee shall utilize the data gathered from the recordkeeping requirements from flaring during gasifier startup/shutdown during the first twelve (12) months of normal operation to establish BACT during gasifier startups and shutdowns. The permittee shall submit this information to the agency within 60 days following this period. The PSD Permit will then be modified to include the revised BACT for periods of gasifier startup and shutdown.

OPERATIONAL RESTRICTIONS

For Emission Point AA-003, the permittee shall not use any fuel other than pipeline quality natural gas or propane in the flare pilots and for gas enrichment to aid combustion.

Synthesis gas and gasification process gases may be directed to the flares during malfunction, breakdown, or upset conditions such as trips of the Combustion Turbine/HRSG system or gasification processes to allow safe release of gases during recovery from such conditions. The emission limitations identified above are not applicable during process upsets, malfunctions or breakdowns.

The flare may also be used to combust various process gases during normal operations of the gasifier including gas sent from the sour water treatment system and gas from the ash handling silo.

The permittee shall use good flare design consistent with the following requirements:

(a) The permittee shall operate the flare at all times when emissions may be vented to them.

(b) The flare shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(c) The flares shall be designed for no visible emissions.

RECORDKEEPING REQUIREMENTS

The permittee shall perform visible emission observations using EPA Reference Method 22 on a monthly basis for the first 12 months after initial gasifier startup to verify proper design of the flare derrick. The permittee shall submit this information to the Department at the same time the flare usage report for gasifier startup/shutdown is required.

Within 180 days of initial startup, the permittee shall submit a gas monitoring plan for all process gas streams vented to the flare during normal operations of the gasifier. The plan shall include methodology of how the permittee shall monitor the type, quantity, quality, heating value, and sulfur content of the process gas stream(s) (including the natural gas or propane used for enrichment) vented to the flare. The plan shall incorporate the use of continuous flow and hydrogen sulfide monitors where feasible. Upon approval of the plan by the Department, the monitoring plan will become an effective part of the permit to demonstrate compliance with the emission limitations.

REPORTING REQUIREMENTS

After initial startup of Emission Point AA-003, the permittee shall submit semi-annual reports summarizing the number and duration of the startup and shutdown events recorded for the previous 12-month period.

After approval of the gas monitoring plan, the permittee shall submit a summary of the monitoring data required under the approved plan on a monthly basis and a 12-month rolling total basis. The facility shall use this information along with accepted engineering methodology to calculate the NOx, CO, and SO_2 emissions on a monthly basis and a 12-month rolling total basis.

The reports shall be due by January 31 and July 31 of each calendar year.

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Points AA-004 and AA-005, the Acid Gas Removal (AGR) Process Startup and Shutdown Vents.

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

EMISSIONS LIMITATIONS

Reduced Sulfur Compounds (RSC) (including H_2S, COS, & C_2S)*	9.9 tons per year, as determined by EPA Reference Method 15 or an approved equivalent, 40 CFR 60, Appendix A.
Opacity	20% as determined by EPA Test Method 9, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

* Combined limitation for Emission Points AA-004, AA-005, AB-001 and AB-002

STARTUP/SHUTDOWN REQUIREMENTS

During startup of the AGR Process, AGR process gases will be vented to the AGR Process Startup/Shutdown Vents until they are either routed to the CO_2 pipeline or to the IGCC Stacks (Emission Points AB-001 and AB-002). During AGR process shutdown, the AGR process gases will be vented to the AGR Process Startup/Shutdown Vents until the gasification system is purged and the process gases are no longer produced.

Beginning upon initial startup of the AGR process, the permittee shall monitor and maintain records of startups and shutdowns of the processes. The records shall include the time, date, and duration of venting to the AGR Process Startup/Shutdown Vents.

Within 180 days of initial startup, the permittee shall submit a monitoring plan for Emission Points AA-004 and AA-005 which details the methodology of how the permittee shall monitor annual emissions of reduced sulfur compounds of the AGR process gas stream(s). Upon approval of the plan by the Department, the monitoring plan will become an effective part of the permit to demonstrate compliance with the RSC emission limitation. Initial startup for this emission points shall be defined as the time when synthesis gas produced in the gasifier is first combusted in the combustion turbine.

The permittee shall utilize the data gathered from the recordkeeping requirements from the AGR Process Startup/Shutdown Vents during the first twelve (12) months of normal operation to establish BACT for the emission points. The permittee shall submit this information to the Department within 60 days following this period. The PSD Permit will then be modified to include the revised BACT for the AGR Process Startup/Shutdown Vents.

REPORTING REQUIREMENTS

After initial startup of Emission Points AA-004 and AA-005, the permittee shall submit semi-annual reports summarizing the number and duration of the startup and shutdown events recorded for the previous 12-month period. The reports shall be due by January 31 and July 31 of each calendar year.

After approval of the monitoring plan, the permittee shall submit semiannual reports providing the summary of the monitoring data required under the approved plan for each consecutive 12-month period. The emissions calculations shall be based upon approved monitoring plan for the AGR process gases. The report is due by January 31 and July 31 of each calendar year.

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point AA-006, the nominal 285 MMBTU/hr natural gas or propane fired auxiliary boiler.

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

EMISSIONS LIMITATIONS (when using natural gas)

Nitrogen Oxides	0.04 lbs/MMBTU on a 30-day rolling average basis not to exceed 11.4 lbs/hr and 8.55 tons/year, as determined by EPA Test Method 7, 40 CFR 60, Appendix A.
Opacity	20% as determined by EPA Test Method 9, 40 CFR 60, Appendix A.

EMISSIONS LIMITATIONS (when using propane)

Nitrogen Oxides	0.065 lbs/MMBTU on a 30-day rolling average basis not to exceed 18.4 lbs/hr and 13.8 tons/year, as determined by EPA Test Method 7, 40 CFR 60, Appendix A.
Opacity	20% as determined by EPA Test Method 9, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

OPERATIONAL RESTRICTION

For Emission Point AA-006, the permittee shall not use any fuel other than pipeline quality natural gas or propane.

Beginning after completion of the characterization of normal gasifier startup conditions as described in the previous gasifier startup stack section, for Emission Point AA-006, the permittee shall be limited to a maximum operating time of 1500 hours/year in any consecutive 12-month period.

NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60)

Emission Point AA-006 is subject to and shall comply with the New Source Performance Standards (NSPS), as described in 40 CFR 60, Subpart A - General Provisions, including Notification and Recordkeeping as provided in 40 CFR 60.7, the Performance Test Requirements as provided in 40 CFR 60.8, and the specific requirements outlined in 40 CFR 60, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. Applicable requirements include the following:

(a) Standards - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Db, Section 60.44b.

(b) Monitoring Requirements - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Db, Section 60.48b.

(c) Test Methods and Procedures - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Db, Section 60.46b.

(d) Recordkeeping and Reporting Requirements - The permittee shall comply with the reporting and recordkeeping requirements listed in 40 CFR 60, Subpart Db, §60.7 and §60.49b.

CONTINUOUS EMISSION MONITORING

For each boiler, the permittee shall install, calibrate, maintain and operate continuous monitoring systems for NOx and O_2 (or CO_2) emissions and shall record the output of the system as specified in 40 CFR Section 60.48b(b).

These monitoring systems must comply with all applicable requirements specified in §60.48b, §60.13, and Appendix B of 40 CFR Part 60. In addition, the permittee must comply with the reporting and recordkeeping requirements specified in §60.7.

RECORDKEEPING REQUIREMENT

For Emission Point AA-006, the permittee shall monitor and keep records of the hours of operation for the emission unit on a monthly basis and a consecutive 12-month basis.

For Emission Point AA-006, the permittee shall monitor the type of fuel used and the total heat input for each fuel used on a monthly basis and a consecutive 12-month basis.

REPORTING REQUIREMENT

For Emission Point AA-006, the permittee shall submit semi-annual reports of the hours of operation of the emission unit and the type of fuels used on a monthly basis and a consecutive 12-month basis. Each report is due by January 31 and July 31 of each calendar year.

PERFORMANCE TESTING

For Emission Point AA-006, the permittee shall demonstrate compliance with the nitrogen oxides lb/hr emission limitation by stack testing in accordance with EPA Reference Method 7 or an approved equivalent, and submittal of a test report within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup and biennially thereafter. The facility shall also conduct an initial stack test to verify the estimated CO lb/hr emissions provided in the permit application. The CO test shall be conducted using EPA Reference Method 10 or an approved equivalent and it shall be performed simultaneously with the NOx stack test.

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point AA-007, the Wet gas Sulfuric Acid (WSA) Process Stack.

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

EMISSIONS LIMITATIONS

Sulfur Dioxide	45.4 lbs/hr based on a 24-hour operating rolling average, and 199.0 tons/year (on a 12-month rolling total), as determined by EPA Test Method 6, 40 CFR 60, Appendix A.
Sulfuric Acid Mist	5.0 lbs/hr based on a 24-hour operating rolling average, and 22.0 tons/year (on a 12-month rolling total), as determined by EPA Test Method 8, 40 CFR 60, Appendix A.
Opacity	40% as determined by EPA Test Method 9, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

STATE STANDARDS

For Emission Point AA-007, the emission of gas containing sulfur oxides from any process equipment shall be limited to 500 ppm (volume) or less. (Ref.: APC-S-1, Section 4.2(a))

For Emission Point AA-007, the emissions of sulfuric acid mist shall not exceed 0.5 pounds per ton of acid produced. The emissions of sulfur trioxide shall not exceed 0.2 pounds per ton of acid produced. (Ref.: APC-S-1, Section 4.2(c))

CONTINUOUS EMISSION MONITORING

The permittee shall install, calibrate, maintain, and operate an instrument for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of SO_2 emissions into the atmosphere. The monitor shall include a CO_2 or an oxygen monitor for correcting the data for excess air. Within 180 days of initial startup, the

facility shall submit a Monitoring Plan addressing span values and performance testing procedures for the CEMS.

The SO_2 system shall also be capable of and certified to accurately read/measure SO_2 concentrations to comply with the lb/hr and tons/year limits.

REPORTING REQUIREMENTS

After approval of the Monitoring Plan for Emission Point AA-007, the permittee shall submit semi-annul reports summarizing the SO_2 emissions based on the approved Monitoring Plan for each consecutive 12-month period. This report is due by January 31 and July 31 of each calendar year.

The permittee shall keep records of the amount of sulfuric acid produced each month. The records should be keep onsite and available for review by the Department upon request.

PERFORMANCE TESTING

For the WSA process, the permittee shall demonstrate compliance with the SO_2 and H_2SO_4 limitations by stack testing with EPA Reference Methods 6 and 8 respectively or approved equivalents and submittal of a test report within 60 days after achieving the maximum power production rate on syngas, but not later than 180 days after initial gasifier startup and biennially thereafter.

The permittee shall also conduct an initial stack test to verify the emissions of NOx and reduced sulfur compounds using EPA Reference Methods 7 and 15 or approved equivalents. The report shall be submitted along with the initial SO_2 test report.

Part III
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Points AB-001 and AB-002, the two nominal 3175 MMBTU/hr syngas and natural gas fired Integrated Gasification and Combined Cycle (IGCC) Generation Units 1 and 2 with a Heat Recovery Steam Generator and a nominal 910 MMBTU/hr natural gas fired Duct Burner, and AGR Process Venting. When combusting natural gas, emissions are controlled by a selective catalytic reduction (SCR) unit and steam or water injection.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below except during periods of startups and shutdowns:

EMISSIONS LIMITATIONS (Syngas Firing Mode)*

Nitrogen Oxides	210 lbs/hr based on a 24-hour operating rolling average, as determined by EPA Test Method 7, 40 CFR 60, Appendix A.
Carbon Monoxide (when AGR process gasses are) not vented to the IGCC stacks)	105 lbs/hr based on a 24-hour operating rolling average, as determined by EPA Test Method 10, 40 CFR 60, Appendix A.
Carbon Monoxide (when AGR process gasses are vented to the IGCC stacks)	380 lbs/hr based on a 24-hour operating rolling average, as determined by EPA Test Method 10, 40 CFR 60, Appendix A.
PM/ PM_{10} (filterable)	52 lbs/hr based on a 3-hour block average, as determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A.
Volatile Organic Compounds	17.1 lbs/hr based on a 3-hour block average, as determined by EPA Test Method 25A/18, 40 CFR 60, Appendix A.
Sulfur Dioxide	13.1 lbs/hr based on a 24-hour operating rolling average, as determined by EPA Test Method 6, 40 CFR 60, Appendix A.
Sulfuric Acid Mist	1.8 lbs/hr based on a 3-hour block average, as determined by EPA Test Method 6, 40 CFR 60, Appendix A.

Opacity	20% (six minute average), except for one six-minute period per hour of not more than 27%, as determined by EPA Reference Method 9, 40 CFR 60, Appendix A.

EMISSIONS LIMITATIONS (Natural Gas Firing Mode)*

Nitrogen Oxides	0.015 lb/MMBTU not to exceed 39 lbs/hr, both limits are based on a 24-hour operating rolling average, as determined by EPA Test Method 7, 40 CFR 60, Appendix A.
Carbon Monoxide	0.063 lb/MMBTU not to exceed 127 lbs/hr, both limits are based on a 24-hour operating rolling average, as determined by EPA Test Method 10, 40 CFR 60, Appendix A.
PM/ PM_{10} (filterable)	0.01 lb/MMBTU not to exceed 24 lbs/hr, both limits are based on a 3-hour block average, as determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A.
Volatile Organic Compounds	0.008 lb/MMBTU not to exceed 21 lbs/hr both limits are based on a 3-hour block average, as determined by EPA Test Method 25A/18, 40 CFR 60, Appendix A.
Sulfur Dioxide	1.9 lbs/hr based on a 3-hour block average as determined by fuel monitoring.
Sulfuric Acid Mist	0.3 lbs/hr based on a 3-hour block average as determined by fuel monitoring.
Opacity	20% (six minute average), except for one six-minute period per hour of not more than 27%, as determined by EPA Reference Method 9, 40 CFR 60, Appendix A.

ANNUAL EMISSIONS LIMITATIONS

Nitrogen Oxides	920 tons/year as determined by EPA Test Method 7, 40 CFR 60, Appendix A.
PM/ PM_{10} (filterable)	228 tons/year as determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A.

Volatile Organic Compounds	91 tons/year as determined by EPA Test Method 25A/18, 40 CFR 60, Appendix A.
Sulfur Dioxide	58 tons/year as determined by EPA Test Method 6, 40 CFR 60, Appendix A.
Sulfuric Acid Mist	8 tons/year as determined by EPA Test Method 6, 40 CFR 60, Appendix A.
Reduced Sulfur Compounds (RSC) (including H_2S, COS, & C_2S)**	9.9 tons per year as determined by EPA Test Method 15, 40 CFR 60, Appendix A.

*Emissions for each emission point. During periods of time when both fuels are being fired, the emissions limitations for syngas firing mode shall apply whenever syngas constitutes 25% or more of the total heat input to the turbine.

** Combined limitation for Emission Points AA-004, AA-005, AB-001 and AB-002

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

STARTUP/SHUTDOWN PROVISIONS

The permittee shall not use emission rates during periods of startup or shutdown for determining compliance with the short-term emission rates specified above. However, the permittee shall use emission rates during periods of startup or shutdown for determining compliance with the long-term annual emission rates specified above.

For syngas operation, turbine startup is defined as the period of time when the unit initiates firing until the unit reaches 75% load. Turbine Shutdown is defined as the period of time from 75% load to the cessation of turbine firing.

For natural gas operation, turbine startup is defined as the period of time when the unit initiates firing until the unit reaches 60% load. Turbine Shutdown is defined as the period of time from 60% load to the cessation of turbine firing.

The permittee shall monitor and maintain records of the duration of time these Emission Points engage in periods of both startups and shutdowns. The permittee shall submit startup and shutdown duration information included in the semi-annual reports required in the Reporting Requirements section and as specified in 40 CFR 60, §60.7 and 40 CFR 75.

The permittee shall utilize the data gathered from the required CEMS systems during the first twelve (12) months following initial startup to establish BACT during startups and

shutdowns. The permittee shall submit this information to the Department within 60 days following this period. The PSD Permit will then be modified to include the revised BACT for periods of startup and shutdown. Initial startup for these emission points shall be defined as the time when synthesis gas produced in the gasifier is first combusted in the combustion turbine.

For Emission Points AB-001 and AB-002, the permittee shall operate the combustion turbines in a manner consistent with good air pollution control practices to minimize emissions during startup and shutdowns. This operation shall occur in accordance with the manufacturer's written instructions or other written instructions developed and maintained by the permittee which shall include review of the operating parameters of the unit during startup or shutdowns as necessary to make adjustments to reduce or eliminate excess emissions. When utilizing natural gas as the operating fuel, the SCR system shall be operated as soon as and as long as the unit operating conditions are amenable to its effective use. The SCR system shall be maintained in accordance with written procedures developed and maintained by the permittee, and the procedures shall be reviewed at least biennially.

SCR DEMONSTRATION PERIOD FOR SYNGAS OPERATION

The permittee shall perform a demonstration of SCR usage while using syngas. Within 60 days after the initial performance test required for NOx while firing syngas, the permittee shall submit an SCR test protocol for approval by the Department. The test period shall extend sufficiently to evaluate the feasibility of SCR operations over an approximate catalyst life cycle. The test period shall not exceed 5 years. Within 180 days of the end of the test period, the permittee will prepare and submit a report to the Department on SCR operations while firing syngas.

OPERATIONAL RESTRICTION

For Emission Points AB-001 and AB-002, the permittee shall not use any fuel other than lignite derived synthesis gas (syngas) and natural gas for normal operations of the combustion turbines. Synthesis gases derived from other feedstocks may be used in the combustion turbines for demonstration purposes; however, MDEQ shall be notified prior to using any alternative fuels and the emission limitations will remain in effect.

The permittee shall not burn any natural gas other than pipeline quality natural gas.

CONTINUOUS EMISSION MONITORING

For each combustion turbine, the permittee shall install, calibrate, maintain and operate continuous monitoring systems for the following parameters:

(a) NO_X as specified in 40 CFR 60, §60.49Da(c), and 40 CFR 75

(b) SO_2 as specified in 40 CFR 60, §60.49Da(b) and 40 CFR 75

(c) O_2 or CO_2 as specified in 40 CFR 60, §60.49Da(d), and 40 CFR 75

(d) CO as specified in 40 CFR 60, Appendix B and Appendix F. The CGA and RA Audits shall be conducted according to 40 CFR 60, Appendix B and F. However, the frequency of the audit shall be as specified in 40 CFR 75, Appendix B, Section 2.2. The RATA required under 40 CFR 60, Appendix F, shall be at the frequency specified in 40 CFR 75, Appendix B, Section 2.3.1 and is as follows:

> A calendar quarter that does not qualify as QA operating quarter shall be excluded in determining the deadline for the next RATA. No more than eight successive calendar quarters shall elapse after the quarter in which a RATA was last performed without a subsequent RATA having been conducted. If the RATA has not been completed by the end of the 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.

(e) Flow of exhaust gases as specified in 40 CFR 60.49Da (l) & (m) and 40 CFR 75 (if required to demonstrate compliance with an output based standard in 40 CFR Da). As an alternative to the stack flow monitor, a fuel flow monitoring system as specified in 40 CFR Part 75 may be installed.

(f) Gross electrical output of the unit in megawatt-hours as specified in 40 CFR 60.49Da (if required to demonstrate compliance with an output based standard in 40 CFR Da).

These monitoring systems must comply with all applicable requirements specified in §60.49Da, §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.

The NO_X, CO, SO_2 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 limits. Within 180 days of startup of the combustion turbines, the permittee shall submit a data substitution protocol for the CEMs in case of malfunction to calculate the tons/year emissions for NOx, CO and SO_2. 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, CO and SO_2.

As an alternative to demonstrating compliance with the SO_2 tons/year limit by using CEMS, the permittee may elect to use an approved alternative methodology such as an EPA approved Optional SO_2 Emission Data Protocol for Gas-Fired and Oil-Fired Units as specified 40 CFR 75, Appendix D.

NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60)

Emission Points AB-001 and AB-002 are subject to and shall comply with the New Source Performance Standards (NSPS), as described in 40 CFR 60, Subpart A - General Provisions, including Notification and Recordkeeping as provided in 40 CFR 60.7, the Performance Test Requirements as provided in 40 CFR 60.8, and the specific requirements outlined in 40 CFR 60, Subpart Da - Standards of Performance for Electric Utility Steam Generating Units. Applicable requirements include the following:

(a) Standards - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Da, Sections 60.42Da, §60.43Da, §60.44Da and §60.45Da.

(b) Monitoring Requirements - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Da, Section 60.49Da.

(c) Test Methods and Procedures - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Da, Section 60.50Da.

(d) Recordkeeping and Reporting Requirements - The permittee must comply with the reporting and recordkeeping requirements specified in 40 CFR 60, §60.7, §60.51Da and §60.52Da.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (40 CFR 63)

Emission Points AB-001 and AB-002 are subject to and shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants: Coal and Oil-Fired Electric Utility Steam Generating Units, 40 CFR Part 63, Subpart UUUUU. The permittee shall comply with the applicable emission and operating limits of this subpart at all times except during periods of startup and shutdown. During periods of startup and shutdown, the permittee shall meet the applicable work practice standards from Table 3 of Subpart UUUUU. (Ref.: 40 CFR Part 63, Subpart UUUUU, §§63.9980 and 63.10000(a))

ACID RAIN (40 CFR 72-78)

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.

CLEAN AIR INTERSTATE RULE (40 CFR 96)

These emission points are subject to the Clean Air Interstate Rule (CAIR) regulations as specified in 40 CFR 96, and the permittee must comply with all applicable requirements of said standards.

RECORDKEEPING REQUIREMENTS

For Emission Points AB-001 and AB-002, the permittee shall maintain the type and quantity of the fuels used on an hourly basis.

When using natural gas as the operating fuel, the permitee shall demonstrate compliance with the sulfur dioxide and sulfuric acid mist limitations by maintaining the following records to demonstrate the fuel is pipeline quality natural gas:

(a) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 4 ppmv (or a grains/100 scf equivalent) or less; or

(b) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 4 ppmv (or a grains/100 scf equivalent). At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 CFR 75 is required.

Beginning upon initial startup of the AGR process, the permittee shall monitor and maintain records of the AGR gases exhausted through Emission Points AB-001 and AB-002. The records shall include the time, date and duration of time that exhaust gas from the AGR processes are vented to these Emission Points. Within 180 days of initial startup, the permittee shall submit a monitoring plan for the AGR process gas streams exhausted to AB-001 or AB-002. The plan shall include methodology of how the permittee shall monitor annual emissions of reduced sulfur compounds in the process gas stream(s) and shall include initial stack testing of the emissions of RSC from AB-001 and AB-002 during syngas operations. Upon approval of the plan by the Department, the monitoring plan will become an effective part of the permit to demonstrate compliance with the RSC emission limitations.

REPORTING REQUIREMENTS

After initial startup of Emission Points AB-001 and AB-002, the permittee shall submit semiannual reports providing the summary of emissions in tons/year of NOx, CO, and SO_2 based on CEMS data for each consecutive 12-month period. This report is due by January 31 and July 31 of each calendar year.

After approval of the monitoring plan for AGR Process gas streams for Emission Points AB-001 and AB-002, the permittee shall submit semiannual reports providing the summary of emissions in tons/year of RSC for each consecutive 12-month period. The emissions calculations shall be based upon the approved monitoring plan for the AGR process gases. The report is due by January 31 and July 31 of each calendar year.

The permittee shall also submit fuel usage reports summarizing the type and the quantity of fuel used on a monthly and 12-month rolling total basis.

PERFORMANCE TESTING

For each of the turbines, the permittee shall demonstrate compliance with NO_X emission limits by stack testing in accordance EPA Reference Method 7 or an approved equivalent, and submittal of a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup. The initial compliance testing shall be conducted for both fuels.

For each of the turbines, the permittee shall demonstrate compliance with CO emission limits by testing in accordance with the EPA Method 10 or an approved equivalent and submittal of a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup. The initial compliance testing shall be conducted for both fuels.

For each of the turbines, the permittee shall demonstrate compliance with PM/PM_{10} emission limits by stack testing in accordance with EPA Reference Methods 1-5 or an approved equivalent, and submittal of a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup. The initial compliance testing shall be conducted for both fuels. Thereafter, the permittee shall conduct biennial performance test for syngas operation only.

For each of the turbines, the permittee shall demonstrate compliance with VOC emission limits by stack testing in accordance with the EPA Method 25A/18 or an approved equivalent, and submittal of a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup and biennially thereafter. The initial and biennial compliance testing shall be conducted for both fuels.

For each of the turbines, the permittee shall demonstrate compliance with SO_2 emission limits by stack testing in accordance with the EPA Method 6 or an approved equivalent, and submittal of a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup. The initial compliance testing shall be conducted for syngas operation only.

For each of the turbines, the permittee shall demonstrate compliance with H_2SO_4 emission limits by stack testing in accordance with the EPA Method 8 or an approved equivalent and submittal of a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup. The initial compliance testing shall be conducted for syngas operation only.

The permittee shall submit a written stack 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. The protocol shall address the conditions under which the

plant will be operated during testing, and how and which operating parameters will be monitored during testing. 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).

$PM_{10}/PM_{2.5}$ EMISSIONS TESTING

For each of the turbines, the permittee shall measure the PM_{10} and $PM_{2.5}$ emissions (including condensables) by stack testing in accordance with EPA Reference Methods 201A/202 or an approved equivalent, and they shall submit a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup. This testing shall be conducted for both fuels.

The permittee shall submit a written stack 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. The protocol shall address the conditions under which the plant will be operated during testing, and how and which operating parameters will be monitored during testing. 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).

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from AC-001, the Multi-Cell Cooling Tower #1. Emission Point AC-001 is equipped with high-efficiency drift eliminators to reduce particulate emissions. The high-efficiency drift eliminators shall be guaranteed by the manufacturer for a total liquid drift not to exceed 0.0005 drift rate.

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

EMISSIONS LIMITATIONS

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

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from AC-002, the Multi-Cell Cooling Tower #2. Emission Point AC-002 is equipped with high-efficiency drift eliminators to reduce particulate emissions. The high-efficiency drift eliminators shall be guaranteed by the manufacturer for a total liquid drift not to exceed 0.0005 drift rate.

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

EMISSIONS LIMITATIONS

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

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from AC-003, the two nominal 200 HP diesel fuel fired fire-water pumps.

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

EMISSIONS LIMITATIONS

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

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

OPERATIONAL RESTRICTION

For Emission Point AC-003, the permittee may only operate the pumps during emergency situations and required testing and maintenance.

NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60)

Emission Point AC-003 is subject to the New Source Performance Standards (NSPS) for Compression Ignition Internal Combustion Engines as specified in 40 CFR 60, Subpart IIII, and the General Provisions as specified in 40 CFR 60, Subpart A. The permittee must comply with all applicable requirements of said standard. The emission standards for the model year of the emission units constructed shall represent BACT emission limitations.

NESHAP (40 CFR 63)

Emission Point AC-003 is located at an area source of Hazardous Air Pollutants and is subject to the National Emission Standards for Hazardous Air Pollutant Source Performance Standards (NESHAP) for Internal Combustion Engines as specified in 40 CFR 63, Subpart ZZZZ. The permittee must comply with all applicable requirements of said standard.

REPORTING REQUIREMENTS

Within 180 days of initial startup of the pumps, the permittee shall submit the manufacturer's specifications identifying the make and model of the fire-water pumps and highlight that the manufacturer's emission guarantees will meet the emission limits as proposed in the application.

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point AD-001, the baghouse which controls emissions from the crushed lignite coal silos.

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

EMISSIONS LIMITATIONS

PM/ PM_{10} (filterable)	0.005 gr/dscf based on a 3-hour block average as determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A.
Opacity	10% as determined by EPA Test Method 9, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

OPERATIONAL RESTRICTION

For Emission Points AD-001, the control device shall be operated at all times when emissions may be vented to it.

NEW SOURCE PERFORMANCE STANDARD (NSPS)

Emission Point AD-001 is subject to and shall comply with the New Source Performance Standards (NSPS), as described in 40 CFR 60, Subpart A - General Provisions, including Notification and Recordkeeping as provided in 40 CFR 60.7, the Performance Test Requirements as provided in 40 CFR 60.8, and the specific requirements outlined in 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation and Processing Plants. Applicable requirements include the following:

(a) Standards - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Y, Section 60.254(b).

(b) Test Methods and Procedures - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Y, Section 60.257.

(c) Recordkeeping and Reporting Requirements - The permittee shall comply with the reporting and recordkeeping requirements listed in 40 CFR 60, Subpart Y, §60.7 and §60.258.

RECORDKEEPING REQUIREMENTS

After initial startup of Emission Point AD-001, the permittee shall monitor on a monthly basis, the condition of the bags and the pressure drop reading in order to assure that the baghouse is properly maintained and operating efficiently. The permittee shall keep records of the required monitoring and document any maintenance that has been performed or that is necessary. These records shall be kept in log form and made available for review upon request during any inspection visit by Office of Pollution Control personnel.

PERFORMANCE TESTING

The permittee shall demonstrate compliance with opacity limits by testing in accordance with the requirements specified in 40 CFR 60, §60.8, and §60.255(b)(2), and submittal of a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup. Thereafter, the permittee shall conduct performance test according to the requirements contained in §60.255(b)(2).

The permittee shall demonstrate compliance with PM/PM_{10} emission limits by stack testing in accordance with EPA Reference Methods 1-5 or an approved equivalent, and submittal of a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup. Thereafter, the permittee shall conduct performance test according to the following schedule:

(a) If the results of the most recent performance test demonstrate that emissions are greater than 75 percent of the PM emission limitation, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

(b) If the results of the most recent performance test demonstrate that emissions are 75 percent or less of the PM emission limitation, a new performance test must be conducted within 24 calendar months of the date that the previous performance test was required to be completed.

(c) If the affected unit has not operated for the 60 calendar days prior to the due date of a performance test, the permittee is not required to perform the subsequent performance test until 30 calendar days after the next operating day.

(d) The permittee is exempt from the subsequent performance testing requirements in items (a) and (b) above provided that all of the conditions specified in 40 CFR 60.255(d)(1)-(3) are met.

The permittee shall submit a written stack 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).

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from baghouses from the following Emission Points:

Emission Point	Description
AD-002	Coal Milling and Drying Operation #1 controlled by a baghouse
AD-003	Coal Milling and Drying Operation #2 controlled by a baghouse
AD-004	Coal Milling and Drying Operation #3 controlled by a baghouse
AD-005	Coal Milling and Drying Operation #4 controlled by a baghouse
AD-006	Coal Milling and Drying Operation #5 controlled by a baghouse
AD-007	Coal Milling and Drying Operation #6 controlled by a baghouse

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

EMISSIONS LIMITATIONS

PM/ PM_{10} (filterable)	0.005 gr/dscf based on a 3-hour block average as determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A.
Opacity	10% as determined by EPA Test Method 9, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

OPERATIONAL RESTRICTION

For Emission Points AD-002 through AD-007, the control devices shall be operated at all times when emissions may be vented to them.

NEW SOURCE PERFORMANCE STANDARD (NSPS)

Emission Points AD-002 through AD-007 are subject to and shall comply with the New Source Performance Standards (NSPS), as described in 40 CFR 60, Subpart A - General Provisions, including Notification and Recordkeeping as provided in 40 CFR 60.7, the

Performance Test Requirements as provided in 40 CFR 60.8, and the specific requirements outlined in 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation and Processing Plants. Applicable requirements include the following:

(a) Standards - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Y, Section 60.254(b).

(b) Test Methods and Procedures - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Y, Section 60.257.

(c) Recordkeeping and Reporting Requirements - The permittee shall comply with the reporting and recordkeeping requirements listed in 40 CFR 60, Subpart Y, §60.7 and §60.258.

RECORDKEEPING REQUIREMENTS

After initial startup of Emission Points AD-002 through AD-007, the permittee shall monitor on a monthly basis, the condition of the bags and the pressure drop reading in order to assure that the baghouse is properly maintained and operating efficiently. The permittee shall keep records of the required monitoring and document any maintenance that has been performed or that is necessary. These records shall be kept in log form and made available for review upon request during any inspection visit by Office of Pollution Control personnel.

PERFORMANCE TESTING

The permittee shall demonstrate compliance with opacity limits by testing in accordance with the requirements specified in 40 CFR 60, §60.8, and §60.255(b)(2), and submittal of a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup. Thereafter, the permittee shall conduct performance test according to the requirements contained in §60.255(b)(2).

The permittee shall demonstrate compliance with PM/PM_{10} emission limits by stack testing in accordance with EPA Reference Methods 1-5 or an approved equivalent, and submittal of a test report within 60 days after achieving the maximum power production rate, but not later than 180 days after initial startup. Thereafter, the permittee shall conduct performance test according to the following schedule:

(a) If the results of the most recent performance test demonstrate that emissions are greater than 75 percent of the PM emission limitation, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

(b) If the results of the most recent performance test demonstrate that emissions are 75 percent or less of the PM emission limitation, a new performance test must be

conducted within 24 calendar months of the date that the previous performance test was required to be completed.

(c) If the affected unit has not operated for the 60 calendar days prior to the due date of a performance test, the permittee is not required to perform the subsequent performance test until 30 calendar days after the next operating day.

(d) For up to five of the affected units listed in Emission Points AD-002 through AD-007, the permittee may elect to use a single PM performance test for one of the affected control devices to demonstrate that the group of affected facilities is in compliance with the PM emission limitation provided that all of the conditions specified in 60.255(e)(1) through (3) are met.

The permittee shall submit a written stack 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).

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point AD-008, the Open Coal Storage Piles (including equipment used in the loading, unloading, and conveying of operations of the open storage pile).

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

NEW SOURCE PERFORMANCE STANDARD (NSPS)

Emission Point AD-008 is subject to and shall comply with the New Source Performance Standards (NSPS), as described in 40 CFR 60, Subpart A - General Provisions, including Notification and Recordkeeping as provided in 40 CFR 60.7, the Performance Test Requirements as provided in 40 CFR 60.8, and the specific requirements outlined in 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation and Processing Plants. Applicable requirements include the following:

(a) Standards - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Y, Section 60.254(c).

(b) Recordkeeping and Reporting Requirements - The permittee shall comply with the reporting and recordkeeping requirements listed in 40 CFR 60, Subpart Y, §60.7 and §60.258.

Part III

EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning March 9, 2010, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point AD-009, Miscellaneous Coal Processing and Conveying Equipment and Storage (including Primary Sizer, Secondary Sizer, Conveyor 1, Conveyor 2, Conveyor 3, Transfer Buildings 1 & 2, and Active Storage Pile).

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

EMISSIONS LIMITATIONS

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

All test methods specified above shall be those versions, or their approved equivalents, which are in effect March 9, 2010.

NEW SOURCE PERFORMANCE STANDARD (NSPS)

Emission Point AD-009 is subject to and shall comply with the New Source Performance Standards (NSPS), as described in 40 CFR 60, Subpart A - General Provisions, including Notification and Recordkeeping as provided in 40 CFR 60.7, the Performance Test Requirements as provided in 40 CFR 60.8, and the specific requirements outlined in 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation and Processing Plants. Applicable requirements include the following:

(a) Standards - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Y, Section 60.254(b).

(b) Test Methods and Procedures - The permittee shall comply with the requirements listed in 40 CFR 60, Subpart Y, Section 60.257.

(c) Recordkeeping and Reporting Requirements - The permittee shall comply with the reporting and recordkeeping requirements listed in 40 CFR 60, Subpart Y, §60.7 and §60.258.

PERFORMANCE TESTING

The permittee shall demonstrate compliance with opacity limits by testing in accordance with the requirements specified in 40 CFR 60, §60.8, and §60.255(b)(2), and submittal of a test report within 60 days after achieving the maximum power production rate, but not

later than 180 days after initial startup. Thereafter, the permittee shall conduct performance test according to the requirements contained in §60.255(b)(2).

The permittee shall submit a written stack 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).

Part IV.
OTHER REQUIREMENTS

1. The permittee shall retain all required records and support information on-site and in log form for a period of at least five (5) years from the date of the record unless specified otherwise. These records 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.

2. The operator of the equipment covered by this permit shall operate and maintain this equipment to assure that the emission rates will not, at any time, exceed the rates allowed by the Mississippi Air Emission Regulations.

3. 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.

4. The permittee shall submit semi-annual reports of all records required by this permit. The reports are due by January 31 and July 31 of each calendar year.

5. For Emission Points AA-001 through AA-007, AB-001, AB-002, and AD-001 through AD-009, the permittee must provide in writing the date of startup and the date maximum production rates are reached.

6. Dust from truck traffic and other fugitive emissions on plant property must be kept to a minimum. Dust suppression/collection measures shall be employed to minimize dust from equipment and/or operations in the lignite and ash handling and storage systems. These measures include but are not limited to the use of wet suppression, fogging, and/or partial and full enclosures. All in-plant roads, the ash haul road, and the coal haul road shall be paved or surfaced with a stable material to minimize fugitive particulate emissions.

7. At least 60 days before initial startup of the gasifiers, the permittee shall have developed and submitted to the Department for review and comment, a best management practices plan (BMP) designed to quantify and reduce fugitive emissions from the gasifier process. The plan shall include a hazardous air pollutants evaluation verifying the status of the facility’s area source status.