NRO-247-08

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193-1453
(703) 583-3800 *fax* (703) 583-3801
www.deq.virginia.gov

July 31, 2008

Mr. Robert E. Driscoll
President
Mirant Mid-Atlantic, LLC
1155 Perimeter Sector West
Atlanta, GA 30338

Registration No.: 70288

Dear Mr. Driscoll:

Attached is a permit to operate an electric generating facility in accordance with the provisions of the Commonwealth of Virginia State Air Pollution Control Board (Board) Regulations for the Control and Abatement of Air Pollution (Regulations).

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

In the course of evaluating the information obtained and arriving at a final decision to approve the permit, the Department of Environmental Quality (DEQ) deemed the application complete on July 30, 2008, and solicited written public comments by placing a newspaper advertisement in the Washington Times on December 21, 2007. A public hearing was held on January 25, 2008. The required comment period, provided by 9 VAC 5-80-1020 A expired on January 29, 2008.

This approval to operate shall not relieve Mirant Potomac River, LLC of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within thirty days after this case decision notice was mailed or delivered to you. 9 VAC 5-170-180 provides that you may request direct consideration of the decision by the Board if the Director of the DEQ made the decision. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please call the regional office at (703) 583-3845.

Sincerely,

Terry H. Darton
Regional Permit Manager

TAF/THD/HGB/NRO-247-08

Attachment: Permit

cc: Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)
Permits and Technical Assessment Branch, U.S. EPA, Region III

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STATIONARY SOURCE PERMIT TO OPERATE

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Mirant Potomac River LLC
1400 N. Royal Street
Alexandria, Virginia 22314

Registration No.: 70228

is authorized to operate

an electric generating facility

located at

1400 North Royal Street
Alexandria, VA 22314

in accordance with the Conditions of this permit.

Issuance date July 31, 2008

Thomas A. Faha
Regional Director

Permit consists of 23pages.
Permit Conditions 1 to 51.
Source Testing Report Format
Appendix A - Merged Stack Scenarios, 2 pages
Project Schedule and Agreement, 13 pages

INTRODUCTION

This permit approval is based on the results of air dispersion modeling conducted using a protocol approved by the Department of Environmental Quality (DEQ) to ensure that the Mirant - Potomac River Generating Station (PRGS) does not contribute to a modeled exceedance of the National Ambient Air Quality Standards (NAAQS) and Significant Ambient Air Concentrations (SAAC), based on EPA-approved emission factors, emission factors developed from on-site stack testing, and the PROJECT SCHEDULE AND AGREEMENT (Exhibit 1, attached for informational purposes only) between Mirant Potomac River, LLC and the City of Alexandria, dated July 17, 2008, as applicable. Any changes to an existing facility which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction/modification may result in an enforcement action. In addition, this facility may be subject to additional applicable regulatory requirements not listed in this permit.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 and 9 VAC 5-80-810 of the State Air Pollution Control Board's (Board) Regulations for the Control and Abatement of Air Pollution (Regulations). The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

1. **Equipment List** - Equipment at this facility consists of the following:

Reference No.	Equipment Description	Maximum Rated Capacity	Manufactured Date
C1 Cycling Unit	Combustion Engineering, natural circulation, tangentially coal-fired boiler with superheater and economizer with low-NOx burners.	1053 MMBtu/hr	1949
C2 Cycling Unit	Combustion Engineering, natural circulation, tangentially coal-fired boiler with superheater and economizer with low-NOx burners.	1029 MMBtu/hr	1950
C3 Base Unit	Combustion Engineering, controlled circulation, tangentially coal-fired boiler with superheater, single reheater and economizer with low-NOx burners and separated over-fire air (SOFA).	1018 MMBtu/hr	1954

Reference No.	Equipment Description	Maximum Rated Capacity	Manufactured Date
C4 Base Unit	Combustion Engineering, controlled circulation, tangentially coal-fired boiler with superheater, single reheater and economizer with low-NOx burners and separated over-fire air (SOFA).	1087 MMBtu/hr	1956
C5 Base Unit	Combustion Engineering, controlled circulation, tangentially coal-fired boiler with superheater, single reheater and economizer with low-NOx burners and separated over-fire air (SOFA).	1107 MMBtu/hr	1957
Ash Silos	Two (2) fly ash silos and one (1) bottom ash silo	Fly Ash: 82,650 ft^3 (ea) Bottom Ash: 34,619 ft^3	n/a
Ash Loader	Fly ash and bottom ash truck loading from silos and ash truck roadway dust	250 tons/hr per loader	n/a
Coal Handling	Coal pile wind erosion, coal stack-out conveyor system, coal railcar dumper	1.2 million tons per year	n/a
Dry sorbent Handling system	Pneumatic upload system, full enclosure	n/a	n/a

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.

(9 VAC 80-830 and 9 VAC 5-80-850)

2. **Stack Reconfiguration** - The following requirements pertain to the stack reconfiguration:

   a. After issuance of this Permit, the stacks may be reconfigured to allow exhaust effluent from Units C3, C4 and C5 to be combined to pass through the reconfigured stack of Unit C4 as a common exhaust stack, which shall be identified as Merged Stack 4 (MS4). While the stacks are being reconfigured to enable the exhaust effluent from units C3, C4, and C5 to pass through MS4, the facility shall continue to operate in accordance with the June 1, 2007 State Operating Permit.

   b. Upon completion of the exhaust effluent merger of C3, C4, and C5 described above and the commencement of operation of units C3, C4, and C5 exhausting through MS4, the conditions of this permit shall apply to units C3, C4, and C5 and the June 1, 2007, State Operating Permit shall be superseded.

   c. Upon commencement of operation of units C3, C4, and C5 exhausting through MS4, units C1 and C2 shall not operate until such time as the merger of units C1 and C2 is complete.

   d. The stacks may be reconfigured to allow exhaust effluent from Units C1 and C2 to be combined to pass through stack of Unit C1, which shall be identified as Merged Stack 1 (MS1), and/or redirected to exhaust through MS4 in accordance with Appendix A. The exhaust effluent from units C3, C4, and C5 shall not be exhausted through MS1.

e. The existing stacks from units C2, C3, and C5 shall be retired in place upon completion of the MS1 and MS4 stack merge projects. Any resumption of operation of the retired stacks shall be evaluated for permitting purposes as though they never existed.

(9 VAC 5-80-850)

3. **Nitrogen Oxides (NO_X) Emission Controls** - NO_X emissions from boilers C1 and C2 shall be controlled by the use of low-NO_X burners. The low-NO_X burners shall be in operation when the boilers are operating on coal, and adequate access for inspection shall be provided when the boiler is not operating.
(9 VAC 5-80-850)

4. **Nitrogen Oxides (NO_X) Emission Controls** - NO_X emissions from boilers C3, C4, and C5 shall be controlled by the use of low-NO_X burners and separated over-fire air (SOFA). The low-NO_X burners and SOFA systems shall be in operation when the boilers are operating on coal and adequate access for inspection shall be provided when the boiler is not in operation.
(9 VAC 5-80-850)

5. **Sulfur Dioxide (SO_2) and Acid Gas Emission Controls** - SO_2 emissions from boilers C1, C2, C3, C4, and C5 shall be controlled by the use of low sulfur coal and dry sorbent injection (sodium sesquicarbonate). Should an alternate dry sorbent strategy be developed in the future, the permittee shall submit a Form 7 application, or equivalent, to request an amendment to this permit. The dry sorbent injection system shall be provided with adequate access for inspection. Dry sorbent (sodium sesquicarbonate) shall be injected anytime a boiler is operating on coal.
(9 VAC 5-80-850)

6. **Alternate Dry Sorbent** - The DEQ shall be notified no less than 30 days prior to evaluating an alternate dry sorbent for SO_2 and acid gas emissions reductions. The notification shall include, at a minimum, a stack test protocol that will be used to evaluate the alternate dry sorbent; an in-depth description of the chemical properties of the proposed alternate dry sorbent; and any information available in the public sector in Mirant's possession that will support the proposal of the effectiveness of the alternate dry sorbent in reducing SO_2 and acid gas emissions and its effects on PM, PM-10, and PM-2.5 emissions. The stack test protocol shall include testing for SO_2, PM, PM-10, PM-2.5, CO, HCl, and HF. One hard copy of the test results and one copy of the test results on electronic media shall be submitted to the Regional Air Compliance Manager and Regional Air Permit Manager of the DEQ's Northern Regional Office (NRO) at the address in Condition 18 within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-850)

7. **Particulate Matter (PM) Emission Controls** - Particulate emissions from boilers C1, C2, C3, C4, and C5 shall each be controlled by a hot side electrostatic precipitator followed in series by a cold side electrostatic precipitator designated as HSESP1 and CSESP1, HSESP2 and CSESP2, HSESP3 and CSESP3, HSESP4 and CSESP4, and HSESP5 and CSESP5, respectively. Each electrostatic precipitator shall be provided with adequate access for

inspection and shall be in operation when the connected boiler is operating. Prior to commencement of construction on any additional or alternate particulate matter controls on Units C1, C2, C3, C4 and C5 pursuant to Exhibit 1, the permittee shall request DEQ to approve and incorporate into this permit the agreed upon control methodology and/or control equipment and any associated testing, monitoring and recordkeeping requirements.
(9 VAC 5-80-850)

8. **Particulate Matter (PM) Emission Controls** - Particulate emissions from each of the two (2) fly ash silos shall be controlled by fabric filter baghouses and by routing the fabric filter baghouses exhausts to the boiler C1 hot side electrostatic precipitator. The fabric filter baghouses shall be provided with adequate access for inspection and shall be in operation when the fly ash silos are in use (during loading and unloading). Should alternate particulate control strategies be developed in the future, the permittee shall submit applicable portions of a Form 7 application, or written equivalent.
(9 VAC 5-80-850)

9. **Particulate Matter (PM) Emission Controls** - Particulate emissions from the bottom ash silo shall be controlled by a fabric filter baghouse and by routing the fabric filter baghouse exhaust to the boiler C1 hot side electrostatic precipitator. The fabric filter baghouse shall be provided with adequate access for inspection and shall be in operation when the bottom ash silo is in use (during loading and unloading). Should alternate particulate control strategies be developed in the future, the permittee shall submit the applicable portions of a Form 7 application, or written equivalent.
(9 VAC 5-80-850)

10. **Particulate Matter (PM) Emission Controls** - Fugitive particulate emissions from fly ash and bottom ash transfer from the ash silos to trucks or rail cars shall be controlled by full or partial enclosure, wet suppression within the loading chute, and water fogging within the enclosure. The full or partial enclosure system shall be provided with adequate access for inspection and shall be utilized whenever fly ash and bottom ash transfer from the silos to trucks or rail cars is occurring. The use of rail cars for transporting ash requires the use of fugitive emissions controls that are equivalent to those used by trucks. Should alternate fugitive particulate control strategies be developed in the future, the permittee shall submit the applicable portions of a Form 7 application, or written equivalent.
(9 VAC 5-80-850)

11. **Particulate Matter (PM) Emission Controls** - Fugitive particulate emissions from the coal pile (via wind erosion or wind dispersion) shall be controlled by maintaining an approved windscreen and application of a surfactant during loading of the coal pile. Particulate emissions from the coal stack-out conveyor system shall be controlled by the use of an enclosed conveyor and the installation of a telescopic chute or a DEQ-approved equivalent. Should alternate fugitive particulate control strategies be developed in the future, the permittee shall submit the applicable portions of a Form 7 application or written equivalent.
(9 VAC 5-80-850)

12. **Particulate Matter (PM) Emission Controls** - Particulate emissions from coal railcar dumping shall be controlled by partial enclosure with heavy duty curtains and the use of a

water spray header within the contained railcar dumper. All controls shall be functional and in operation whenever railcar dumping activities are in operation. Should alternate particulate control strategies be developed in the future, the permittee shall submit the applicable portions of a Form 7 application, or written equivalent.
(9 VAC 5-80-850)

13. **Particulate Matter (PM) Emission Controls** - Particulate emissions from dry sorbent (sodium sesquicarbonate or a DEQ-approved equivalent) handling shall be controlled by use of a pneumatic uploading system and total enclosure.
(9 VAC 5-80-850)

14. **Electrostatic Precipitator (ESP) Control Efficiency** - Each pair of electrostatic precipitators (HSESP1 + CSESP1, HSESP2 + CSESP2, HSESP3 + CSESP3, HSESP4 + CSESP4, and HSESP5 + CSESP5) shall achieve an overall control efficiency for all PM that demonstrates compliance with the emission limitations in this permit and shall be demonstrated as required in Conditions 31, 33, 35 and 36 for visible emissions. Permittee shall take readings of secondary voltage and secondary current once per 12-hour shift. These readings shall be compared to those readings taken during the compliance demonstration stack test. When PM CEMS are certified in accordance with Paragraph 19, this provision is no longer applicable.
(9 VAC 5-80-850)

15. **Fugitive Dust and Fugitive Emission Controls** - Fugitive emission controls shall include the following, or equivalent, as approved by DEQ:

    a. Use of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, grading of roads, or clearing of land.

    b. Application of asphalt, water, or suitable chemicals on dirt roads, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of the roadways in a clean condition.

    c. Prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion by using a sweeper.

    d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Trucks leaving the site shall have clean wheels achieved by use of a wheel washer or equivalent.

    e. Prior to commencement of any additional or alternate fugitive emission controls pursuant to Exhibit 1, the permittee shall request DEQ to approve and incorporate into this permit the agreed upon control methodology and/or control equipment and any associated testing, monitoring and recordkeeping requirements.

    (9 VAC 5-40-90 and 9 VAC 5-80-850)

16. **Monitoring - Continuous Opacity Monitoring Systems (COMS)** - Continuous Opacity Monitoring Systems meeting the design specifications of 40 CFR Part 60, Appendix B, shall be installed and maintained to measure and record the opacity of emissions from MS1 and MS4. Except where otherwise indicated in this permit, the COMS shall be installed, calibrated, maintained, and operated in accordance with the requirements of 40 CFR 60.13 and Appendix B or DEQ-approved procedures which are equivalent to the requirements of 40 CFR 60.13 and Appendix B. Data shall be reduced to six-minute averages. The COMS may be used to satisfy the visible emission evaluation requirement in lieu of 40 CFR Part 60, Appendix A, Method 9. In the event that the COMS are used in lieu of a 40 CFR Part 60, Appendix A, Method 9 evaluation, the reported data shall include averages of all six-minute continuous periods within the reported time frame and within the duration of any mass emission performance tests being conducted. It is the responsibility of the permittee to demonstrate that the monitoring system meets the requirements of the applicable performance specification defined in 40 CFR Part 60, Appendix B, that the monitoring system is properly maintained and operated, and that the resulting data have not been altered in any way. In the event that the COMS data indicate compliance for a period during which Method 9 data indicates non-compliance, the Method 9 data may be used to determine compliance with the visible emission limit.
(9 VAC 5-80-890, 9 VAC 5-40-40, and 9 VAC 5-40-20 A.3.)

17. Monitoring - **Continuous Emission Monitoring System** (CEMS) - Carbon Monoxide (CO) -Within 12 months of the issuance of this permit, the permittee shall install a CO CEMS meeting the design specifications of 40 CFR Part 60, Appendix B to measure and record CO from MS1 and MS4. Verification of the operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A performance evaluation of the CO continuous monitoring system shall be conducted in accordance with 40 CFR Part 60, Appendix B. Two copies of the performance evaluation report shall be submitted to the Air Compliance Manager, NRO, within 45 days of the evaluation. A 30-day notification, prior to the demonstration of the continuous monitoring system's performance, and subsequent notifications shall be submitted to the Air Compliance Manager, NRO. The permittee shall accumulate CO data for at least six months and submit that data to the DEQ for the establishment of permitted CO emission limitations based on Facility's performance. Until such time as the CO monitors are certified and new limits are developed, the permittee shall comply with the emission limits in this permit by using applicable AP-42 or other DEQ-approved site specific emission factors.
(9 VAC 5-40-40)

18. **Monitoring - CEMS** - Sulfur Dioxide (SO_2), Nitrogen Oxides (NO_X) as Nitrogen Dioxide (NO_2), and flow CEMS meeting the design specifications of 40 CFR Part 60, Appendix B, and 40 CFR Part 75 shall be installed to measure and record SO_2 and NO_X (as ppmv corrected to 7% O_2 or 12% CO_2), and the volumetric flow rate on MS1 and MS4 as each stack merge project is completed. The permittee shall inform the Regional Air Compliance Manager of the DEQ's Northern Regional Office (NRO) in writing at the following address:

Regional Air Compliance Manager
Department of Environmental Quality

Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

as to which diluent will be used to normalize the SO_2 and NO_X data obtained by the CEMS. Before changing the diluent to be used for normalization, the permittee shall justify in writing to the Regional Air Compliance Manager of the DEQ's NRO, of the reasons for the change in diluent. The span values for SO_2 and NO_X shall comply with the requirements of 40 CFR Parts 60 and/or 75. Within 60 days of achieving maximum rated capacity and not more than 180 days after each stack merger completion, except where otherwise indicated in this permit, the CEMS shall be installed, calibrated, maintained, audited, and operated in accordance with the requirements of the appropriate specifications of 40 CFR 60.13 and 40 CFR 60, Appendices B and/or F or DEQ-approved procedures which are equivalent to the requirements of 40 CFR 60.13 and 40 CFR Part 60, Appendices B and/or F or 40 CFR Part 75, Subpart C, Appendices A and B. The CEMS data shall be sent to the respective data acquisition and handling systems (DAHS) to be reduced to pounds per million Btu and pounds per hour on a 1-hour average, 3-hour rolling averages, 24-hour rolling averages, 30-day rolling averages, and 12-month rolling averages. The permittee shall utilize monthly recorded CEMS data to calculate annual SO_2 and NO_X, emissions (in tons per year) by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding eleven months. Records shall be maintained on-site, or in an electronic database accessible from PRGS, during normal business hours as defined in 44, for the most recent 5-year period and shall demonstrate compliance with the emission limits set forth in Conditions 28 and 29.
(9 VAC 5-80-890 and 9 VAC 5-80-850)

19. **Monitoring - CEMS- Particulate Matter (PM) -** Within 12 months of the issuance of this permit, the permittee shall install, certify, and operate PM CEMS to meet the design specifications of 40 CFR Part 60, Appendix B, to measure and record PM. The PM CEMS shall be operated in accordance with the requirements of the appropriate specifications of 40 CFR 60.13 and 40 CFR Part 60, Appendices B and/or F or DEQ-approved procedures which are equivalent to the requirements of 40 CFR 60.13 and 40 CFR Part 60, Appendices B and/or F or 40 CFR Part 75, Subpart C, Appendices A and B.
(9 VAC 5-40-40 and 9 VAC 5-80-850)

20. **Monitoring -** The permittee shall calculate monthly the emissions of PM-10, PM-2.5, VOC, HCl, and HF from MS1 and MS4. The permittee shall calculate monthly emissions utilizing monthly boiler heat input data or monthly fuel throughput, control equipment efficiency as appropriate, and an appropriate F-factor or AP-42 emission factor in order to demonstrate compliance with the emission limits set forth in Conditions 28 and 29. Calculated emissions shall take into account any emissions associated with the startup and shutdown of the boilers. Startup and shutdown emissions shall be identified as such in any emissions calculations.
(9 VAC 5-80-890 and 9 VAC 5-80-850)

21. **Monitoring Devices - ESP -** A condition assessment shall be conducted on the electrostatic precipitators once per 12-hour shift by the permittee to ensure proper operation. The details of the condition assessment shall be arranged with the Regional Air Compliance Manager of

the DEQ's NRO. The permittee shall maintain a record of each assessment on-site or in an electronic database accessible from PRGS during normal business hours as defined in Condition 44 for the most recent 5-year period. Records shall include the date and the time of the assessment and any findings or corrective actions taken.(9 VAC 5-80-890 and 9 VAC 5-80-850)

22. **Monitoring Devices** - Each ash silo fabric filter baghouse shall be equipped with a device to continuously measure and record the pressure drop across the filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. Each monitoring device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall include, at a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the silos are operating. This data shall be maintained on-site or in an electronic database accessible from PRGS during normal business hours as defined in Condition 44.
(9 VAC 5-80-890 and 9 VAC 5-80-850)

23. **Monitoring Device Observation** - To ensure proper operation of each monitoring device for measuring pressure drop across the fabric filter, the permittee shall conduct the following:

    a. At least once per daylight shift, an observation for the presence of visible emissions from each fabric filter baghouse that is in operation shall be made.

    b. The permittee shall maintain an observation log on-site or in an electronic database accessible from PRGS during normal business hours, as defined in Condition 44, for the most recent 5-year period to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were any visible emissions, any VEE recordings, and any necessary corrective action.

    c. The continuously recorded measurements of the pressure drop shall be maintained on-site or in an electronic database accessible from PRGS during normal business hours, as defined in Condition 44, for the most recent 5-year period and shall be made available for inspection upon request.

    (9 VAC 5-80-890 and 9 VAC 5-80-850)

OPERATING LIMITATIONS

24. **Unit Dispatching** – If and after the PM-2.5 project as defined in Exhibit 1 is completed, the permit will be amended so that the unit(s) with the enhanced PM-2.5 controls will be dispatched first.
(9 VAC 5-80-850)

25. **Fuel** - The approved fuels for boilers C1, C2, C3, C4, and C5 are bituminous coal and distillate oil. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-850)

26. **Fuel** - The coal and distillate oil shall meet the specifications below:

    a. **COAL:**

        i. Minimum heat content: 11,700 dry Btu/lb HHV
        as determined by ASTM D2015, D3286, D5865 or a DEQ-approved equivalent method.

        ii. The sulfur content shall not exceed 0.9 wt % averaged over a calendar quarter as determined by ASTM D3177, D4239 or a DEQ-approved equivalent method.

        iii. Maximum ash content per shipment: 11.0%
        as determined by ASTM D3174 or a DEQ-approved equivalent method.

    b. **DISTILLATE OIL** which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:

        i. Maximum sulfur content per shipment: 0.5%

    (9 VAC 5-80-850)

27. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of coal and distillate oil. Each fuel supplier certification shall include the following, at a minimum:

    a. The name of the fuel supplier or independent third-party laboratory;

    b. The date on which the coal was shipped or distillate oil was received;

    c. The quantity of coal or distillate oil delivered in the shipment;

    d. A statement that the distillate oil complies with the ASTM D396 for numbers 1 and 2 fuel oil;

    e. The sulfur content of the coal or distillate oil;

    f. Documentation of sampling of the coal or distillate oil indicating the location of the fuel when the sample was taken; and

    g. The methods used to determine the sulfur and ash contents of the coal.

    Fuel sampling and analysis using applicable ASTM standards, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 26. The permittee may propose an alternate method of demonstrating compliance with the fuel sulfur requirements of this section; however, the proposed alternate method may not be used without DEQ

authorization. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
(9 VAC 5-80-890 and 9 VAC 5-80-850)

EMISSION LIMITS - Upon completion of the merger of exhaust effluents from C3, C4 and C5 described in Condition 2.a and the commencement of operation of units C3, C4, and C5 exhausting through MS4, the limits of Conditions 28 and 29 shall apply to emissions through MS4. Upon completion of the merger of exhaust effluents from C1 and C2 described in Condition 2.d and the commencement of operation of units C1 and C2 exhausting through MS1, the limits of Conditions 28 and 29 shall apply to emissions through MS1. Upon installation of any additional or alternate particulate matter controls on Units C1, C2, C3, C4 and C5 pursuant to Exhibit 1, the PM-2.5 emission limits (including condensables) in Conditions 28 and 29 shall be revised in accordance with Condition 30.

28. **Process Emission Limits** - Emissions from MS1 and MS4 shall not exceed the limits specified below:

Pollutant	Emission rate	
	Merged Stack 1 (MS1)	**Merged Stack 4 (MS4)**
Particulate Matter (PM) including condensables (3-hour average)	0.045 lb/MMBtu 93.69 lbs/hr	0.045 lb/MMBtu 146.12 lbs/hr
PM-10 including condensables (3-hour average)	0.03 lb/MMBtu 62.46 lbs/hr	0.03 lb/MMBtu 97.41 lbs/hr
PM-2.5 including condensables (3-hour average) (Note 1)	0.016 lb/MMBtu 33.31 lbs/hr	0.016 lb/MMBtu 51.95 lbs/hr
Sulfur Dioxides (SO_2) (3-hour average) Through December 31, 2008	0.39 lb/MMBtu 811.98 lbs/hr	0.39 lb/MMBtu 1,266.33 lbs/hr
Sulfur Dioxides (SO_2) (24-hour average) Through December 31, 2008	0.35 lb/MMBtu 728.70 lbs/hr	0.35 lb/MMBtu 1,136.45 lbs/hr
Sulfur Dioxides (SO_2) (3-hour average) Beginning January 1, 2009 (Note 2)	0.36 lb/MMBtu 749.52 lbs/hr	0.36 lb/MMBtu 1,168.92 lbs/hr
Sulfur Dioxides (SO_2) (24-hour average) Beginning January 1, 2009	0.30 lb/MMBtu 624.60 lbs/hr	0.30 lb/MMBtu 974.10 lbs/hr
Oxides of Nitrogen (as NO_2) (30-day rolling average) (Note 3)	0.35 lb/MMBtu 666.24 lbs/hr	0.27 lb/MMBtu 1,039.04 lbs/hr
Carbon Monoxide (CO) (3-hour average) (Note 4)	0.030 lb/MMBtu 62.46 lbs/hr	0.030 lb/MMBtu 97.41 lbs/hr
Volatile Organic Compounds (VOC) (3-hour average) (Note 4)	0.0023 lb/MMBtu 5.21 lbs/hr	0.0023 lb/MMBtu 8.12 lbs/hr
Hydrogen Chloride (3-hour average)	0.0072 lb/MMBtu 14.99 lbs/hr	0.0072 lb/MMBtu 23.38 lbs/hr
Hydrogen Fluoride (HF) (3-hour average)	0.0026 lb/MMBtu 5.41 lbs/hr	0.0026 lb/MMBtu 8.44 lbs/hr

Note 1: Combined total PM-2.5 emissions (including condensables) from MS1 and MS4 shall not exceed 85 lb/hr.

Note 2: Combined total SO_2 emissions from MS1 and MS4 shall not exceed 1,906 lb/hr beginning January 1, 2009.

Note 3: When emissions from C1 or C2 are vented through MS4 as provided for in Appendix A, the NOx limit for MS4 shall be 0.32 lbs/MMBTU averaged for all units in operation under that scenario emitting through that stack.

Note 4: The carbon monoxide and VOC limitations above are based on assumed emission factors. Compliance with the emission limits may be determined as stated in Conditions 17, 31 and 32.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of an exceedance of the emission limits. Compliance with these emission limits may be determined as stated in Conditions 17, 31, 32, 34, 36 and 38.
(9 VAC 5-80-850)

29. **Facility wide Emission Limits** - Total emissions from boilers C1, C2, C3, C4, and C5 combined shall not exceed the limits specified below:

Pollutant	Tons/Year
Particulate Matter (PM) including condensables	562
PM-10 including condensables	325
PM-2.5 including condensables	207
Sulfur Dioxides (SO_2)	3,813
Oxides of Nitrogen (as NO_2)	3,700
Oxides of Nitrogen (as NO_2) during the Ozone Season through 2009	1,600
Oxides of Nitrogen (as NO2) during the Ozone Season after 2009	1,475
Carbon Monoxide (CO) (Note 1)	256
Volatile Organic Compounds (VOC)(Note 1)	30.4
Hydrogen Chloride (HCl)	100
Hydrogen Fluoride (HF)	36.22

Note 1: The carbon monoxide and VOC limitations above are based on assumed emission factors. Compliance with the emission limits may be determined as stated in Conditions 17, 31 and 32.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of an exceedance of the emission limits. Compliance with these emission limits may be determined as stated in Conditions 17, 31, 32, 34, 36 and 38.
(9 VAC 5-80-850)

30. **Final PM-2.5 Emission Limits -** Upon installation of any additional or alternate particulate matter controls on Units C1, C2, C3, C4 and C5 pursuant to Exhibit 1, the final PM2.5 emission limits shall be based on demonstration of performance of equipment to control particulate matter emissions using results of stack tests conducted following a reasonable shakedown period. A total of nine (9) performance stack tests shall be conducted over a period of two months. The final PM-2.5 limits shall be set by DEQ and approved by the Board via permit amendment based on the performance stack test results. No later than 60 days after receipt of the last stack test report, the permittee shall apply for a modification of this permit consistent with the results of stack testing. Conditional Test Method 40 shall be used to measure filterable PM-2.5 emissions and Test Method 202 or another equivalent

EPA-promulgated method shall be used to measure condensable PM-2.5 emissions for the performance stack tests.

31. **Emission Calculations** - The permittee shall calculate total emissions from MS1 and MS4 combined for PM, PM-10, PM-2.5, CO, HCl, HF, and VOC in tons per year. The permittee shall calculate annual emissions monthly as the sum of each consecutive 12-month period utilizing most recent stack testing results, monthly boiler heat input data or monthly fuel throughput, control equipment efficiency, and for carbon monoxide and VOC, the appropriate F-factors or AP-42 or other DEQ-approved emission factors may be used in order to demonstrate compliance with the emission limits set forth in Condition 29. Calculated emissions shall take into account any emissions associated with the startup and shutdown of the boilers. Startup and shutdown emissions shall be identified as such in any emissions calculations.
(9 VAC 5-80-890 and 9 VAC 5-80-850)

32. **Emission Calculations** – Consistent with Condition 17 and prior to the installation, certification, and operation of the CO CEMS, the permittee shall calculate total emissions of CO in tons per year from MS1 and MS4 using DEQ-approved site specific emission factors. Following the installation, certification, and operation of the CO CEMS, the permittee shall calculate emissions of CO in tons per year one month following the start of certified operation and for the first twelve months will be the sum for each of the completed months. After the initial twelve months of operation, the permittee shall calculate annual emissions by adding the most recent monthly emissions to the previous eleven consecutive months.
(9 VAC 5-80-890 and 9 VAC 5-80-850)

33. **Visible Emission Limit** - Visible emissions from MS1 and MS4 shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity as determined by the EPA Reference Method 9 (reference 40 CFR Part 60, Appendix A). The COMS may be used to satisfy the visible emission evaluation requirement in lieu of 40 CFR Part 60, Appendix A, Method 9. In the event that the COMS are used in lieu of a 40 CFR Part 60, Appendix A, Method 9 evaluation, the reported data shall include averages of all six-minute continuous periods within the reported period and within the duration of any mass emission performance tests being conducted. It is the responsibility of the permittee to demonstrate that the monitoring system meets the requirements of the applicable performance specification defined in 40 CFR Part 60, Appendix B, that the monitoring system is properly maintained and operated, and that the resulting data has not been altered in any way. In the event that the COMS data indicate compliance for a time period during which Method 9 data indicates non-compliance, the Method 9 data may be used to determine compliance with the visible emission limit. This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-850 and 9 VAC 5-40-80)

COMPLIANCE DETERMINATION

34. **Stack Test**

a. Initial compliance tests shall be conducted for NO_X, SO_2, PM, PM-10, HCl, and HF from MS1 and MS4 using appropriate and approved EPA reference methods to determine compliance with the emission standards contained in Condition 28. Additionally, the hot and cold side ESP effectiveness shall be determined during this performance testing and the secondary volts and secondary current shall be recorded as the base line for future monitoring of the ESP operation. If the permittee determines that it is in the best interest of good air pollution control practices to utilize a lower sulfur coal than that required in Condition 26, a test may be conducted to demonstrate the rate of dry sorbent injection necessary to provide the appropriate level of HCl and HF reduction to ensure compliance with the Significant Ambient Air Concentration values. The tests shall be performed within 180 days after completion of each merged stack project. Tests shall be conducted and reported, and data reduced as set forth in 9 VAC 5-40-30 and 9 VAC 5-60-30. The details of the tests are to be arranged with the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18. The permittee shall submit one hard copy of the test protocol and one copy of the test protocol on electronic media at least 30 days prior to testing to the Regional Air Compliance Manager and Regional Air Permit Manager of the DEQ's NRO at the address in Condition 18. One hard copy of the test results and one copy of the test results on electronic media shall be submitted to the Regional Air Compliance Manager and Regional Air Permit Manager of the DEQ's NRO at the address in Condition 18 within 60 days after test completion and shall conform to the test report format enclosed with this permit.

b. Within 5 months of completion of the stack merge, the permittee shall conduct stack testing to determine compliance with the PM-2.5 limit contained in Condition 28. Conditional Test Method 40 shall be used to measure filterable PM-2.5 emissions and Test Method 202 or another equivalent EPA-promulgated method shall be used to measure condensable PM-2.5 emissions for the compliance stack tests. The details of the test are to be arranged with the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18. The permittee shall submit one hard copy of the test protocol and one copy of the test protocol on electronic media at least 30 days prior to testing to the Regional Air Compliance Manager and the Regional Air Permit Manager of the DEQ's NRO at the address in Condition 18. If the initial stack test does not demonstrate compliance with the PM-2.5 limit, the permittee shall conduct a root cause analysis and undertake remedial actions. Within 3 months of the failed stack test, the permittee shall retest according to the DEQ approved protocol. If the second stack test does not demonstrate compliance, the permittee shall conduct another root cause analysis and undertake remedial actions. Within 3 months of the second failed stack test, the permittee shall retest according to the DEQ approved protocol. Failure to demonstrate compliance of the PM-2.5 limit with the third stack test shall be considered a violation of this permit. One hard copy and one copy on electronic media of each stack test shall be submitted to the Regional Air Compliance Manager and the Regional Air Permit Manager of the DEQ's NRO at the address in Condition 18 within 60 days of the completion of each stack test.

c. Following installation of any additional or alternate particulate matter controls on Units C1, C2, C3, C4 and C5 pursuant to Exhibit 1 and upon establishment of final PM-2.5 emission limits in accordance with Condition 30, the permittee shall conduct stack testing

to demonstrate compliance with the final PM-2.5 limit. The permittee shall conduct a stack test once every six months for a period of two years following the establishment of the final PM-2.5 limits. Conditional Test Method 40 shall be used to measure filterable PM-2.5 emissions and Test Method 202 or another equivalent EPA-promulgated method shall be used to measure condensable PM-2.5 emissions for the compliance stack tests. The details of the test are to be arranged with the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18. The permittee shall submit one hard copy of the test protocol and one copy of the test protocol on electronic media at least 30 days prior to testing to the Regional Air Compliance Manager and the Regional Air Permit Manager of the DEQ's NRO at the address in Condition 18. One hard copy and one copy on electronic media of each stack test shall be submitted to the Regional Air Compliance Manager and the Regional Air Permit Manager of the DEQ's NRO at the address in Condition 18 within 60 days of the completion of each stack test. The test report shall include PM CEMS continuous monitoring data collected during each stack test.

(9 VAC 5-40-890 and 9 VAC 5-80-850)

35. **Visible Emissions Evaluation -** Concurrent with the initial performance tests and during the Method 5 compliance demonstration test, a Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, (or by using certified COMS) shall be conducted by the permittee on MS1 and MS4. This work may also be conducted concurrently with the initial compliance tests in Condition 16. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six-minute average. Should the permittee choose to use COMS data, details shall be provided, in writing, to the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18 as part of the testing protocol. The permittee shall submit one hard copy of the test protocol and one copy of the test protocol on electronic media at least 30 days prior to testing to the Regional Air Compliance Manager and the Regional Air Permit Manager of the DEQ's NRO at the address in Condition 18. The evaluation shall be performed during the compliance demonstration testing required in Condition 34. Should conditions prevent concurrent opacity observations, the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18 shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. The continuous opacity monitoring system may be used to satisfy the visible emission evaluation requirement in lieu of 40 CFR Part 60, Appendix A, Method 9. In the event that the COMS data is used in lieu of a 40 CFR Part 60, Appendix A, Method 9 evaluation, the reported data shall include averages of all six-minute continuous periods within the reported time frame and within the duration of any mass emission performance tests being conducted. One hard copy of the test results and one copy of the test results on electronic media shall be submitted to the Regional Air Compliance Manager and the Regional Air Permit Manager of the DEQ's NRO at the address in Condition 18 within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-40-30 and 9 VAC 5-80-850)

36. **CEMS/COMS Performance Evaluations** - Performance specification testing of the continuous monitoring systems (SO_2, NO_X, O_2 or CO_2, CO, PM, flow, and opacity) shall be conducted in accordance with 40 CFR Part 60, Appendix B, and shall take place prior to the performance test required in Conditions 34 and 35. This testing may also be performed concurrently with the testing and evaluations in Conditions 17 and 18. The permittee shall submit one hard copy of the performance specification report and one copy of the performance specification report on electronic media to the Regional Air Compliance Manager and the Regional Air Permit Manager of the DEQ's NRO at the address in Condition 18 within 45 days of the evaluation. Verification of the operational status shall, at a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device, and shall be conducted prior to the monitor performance specification testing. A 30-day notification, prior to conducting the performance specification testing, and subsequent notifications shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18.
(9 VAC 5-40-40 and 9 VAC 5-80-850)

37. **CEMS/COMS Quality Control Program** - A CEMS/COMS quality control program which meets the requirements of 40 CFR 60.13 and Appendix B and/or F and 40 CFR Part 75 shall be implemented for all continuous monitoring systems except that Relative Accuracy Test Audits (RATAs) may be required less frequently if approved by DEQ. This quality control program shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18 for approval within 60 days following successful completion of the performance specification testing of the CEMS/COMS.
(9 VAC 5-40-40 and 9 VAC 5-80-850)

CONTINUING COMPLIANCE DETERMINATION

38. **Annual Compliance Testing** - To ensure continuing compliance, the permittee shall perform the following:

    a. The permittee shall demonstrate compliance on an annual basis utilizing appropriate reference test methods found in 40 CFR Part 60, Appendix A, in the testing of PM-10, PM-2.5, HCl, HF, and CO when limits are established. Conditional Test Method 40 shall be used to measure filterable PM-2.5 emissions and Test Method 202 or another equivalent EPA-promulgated method shall be used to measure condensable PM-2.5 emissions for the compliance stack tests.

    b. Until such time as a new particulate control system is installed and compliance is demonstrated with permitted particulate emission limits, the hot and cold side ESP particulate removal effectiveness shall be determined during this performance testing by recording the secondary volts, secondary current, and spark rate as the base line for continued monitoring of performance of the ESP's during source operation.

    c. These tests shall be performed annually on two base load units and one cycling unit. Testing performed the following year shall include the previous years untested base load

unit and one unit tested the previous year (total of two base load units) and the one untested cycling unit from the previous year (totaling three units to be tested).

d. These tests shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18.

e. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-40-30 and 9 VAC 5-60-30.

f. The permittee shall submit a test protocol at least 30 days prior to testing to the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18.

g. One paper copy of the test results and one electronic copy on removable media of the test results shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18 within 60 days after test completion and shall conform to the test report format enclosed with this permit. The test report for PM-2.5 shall include PM CEMS continuous monitoring data collected during each stack test.

(9 VAC 5-40-30 and 9 VAC 5-60-30)

39. **PM-2.5 Air Quality Analysis -** Following installation of any additional or alternate particulate matter controls on Units C1, C2, C3, C4 and C5 pursuant to Exhibit 1, the final PM-2.5 emission limits to be set in accordance with Condition 30 shall demonstrate compliance with the PM-2.5 NAAQS based on air quality dispersion modeling of PM-2.5 emissions from the Facility, including but not limited to filterable and condensable emissions, using the available model promulgated by the U.S. Environmental Protection Agency (EPA).
(9 VAC 5-80-850)

RECORDS

40. **On-Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content, format and accessibility of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18. These records shall include, but are not limited to:

a. All fuel supplier certifications.

b. Annual emissions calculations for SO_2, NO_X, PM, PM-10, PM-2.5, VOC, CO, HCl, and HF from the boilers using calculation methods approved by the Regional Air Compliance Manager of the DEQ's NRO to verify compliance with the tons per year emission limits in Condition 29.

c. CEMS and COMS maintenance and calibration records including, but not limited to, continuous monitoring system calibrations and calibration checks, percent operating time, and excess emissions.

d. All recorded CEMS and COMS data necessary to demonstrate compliance with the requirements of Conditions 36 and 37 and with the emission limits in Conditions 28 and 29.

e. Any required visible emissions evaluations (VEE's) and visible emission evaluation logbook data.

f. Operation and control device monitoring records for the electrostatic precipitators and fabric filters as required in Conditions 21, 22, 23 and 37.

g. All records of compliance demonstration, CEMS certifications and CEMS RATA's .

h. Scheduled and unscheduled maintenance and operator training.

i. The permittee shall maintain a record of the unit emission discharge scenarios in compliance with the merged stack scenarios outlined in Appendix A.

j. The calendar quarterly average sulfur content of the coal shall be calculated based on three previous monthly averages as of March 31, June 30, September 30 and December 31 of each year.

These records shall be available for inspection by the DEQ during normal business hours as defined in Condition 44 and shall be current for the most recent five years.
(9 VAC 5-40-890)

41. **Quarterly Reports for Continuous Monitoring Systems -** The permittee shall furnish written reports to the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18 of excess emissions from any process monitored by a continuous monitoring system (COMS/CEMS) on a quarterly basis, postmarked no later than the 30th day following the end of each calendar quarter. These reports shall include, but are not limited to the following information:

a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;

c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.

(9 VAC 5-40-50)

42. **Semi-Annual Report** - The permittee shall submit reports to the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18 within 30 days after the end of each semi-annual period. The semi-annual periods are defined as January 1st through June 30th and July 1st through December 31st of each year. The permittee may submit the reports in electronic format as approved by the Regional Air Compliance Manager of the DEQ's NRO. Each semi-annual report shall include the dates included in the semi-annual period and the following:

    a. With regard to CO (when installed and certified), PM (when installed and certified), SO_2, and NO_X emissions and continuous emissions monitoring:

        i. Each 30-day average emission rate in lbs/MMBtu;

        ii. Identification of days for which CO, PM, SO_2, NO_X, and O_2 or CO_2 data have not been obtained by an approved method for at least 75 percent of operating hours, reasons for not obtaining sufficient data, and corrective actions taken;

        iii. Identification of any intervals when emissions data have been excluded from the calculation of average emission rates, justification for excluding data, and a description of corrective action taken if data have been excluded for periods other than when oil was combusted in the unit;

        iv. Identification of the F-factor used in calculations, method of F-factor determination for each type of fuel combusted, and type of fuel combusted;

        v. Identification of any times when the pollutant concentration exceeded the full span of the continuous emissions monitor;

        vi. Description of any modifications to the continuous emissions monitor that could affect its ability to comply with the performance specifications under 40 CFR Part 60, Appendices B and/or F; and

        vii. Summary of the results of daily continuous emissions monitor drift tests and semi-annual accuracy assessments as required by 40 CFR Part 60, Appendix F, Procedure 1.

        viii. All hourly recorded CEMS data in electronic format necessary to demonstrate compliance with the emission limits in Conditions 28 and 29. This requirements only applies for 12 months after the completion of Phase II of Exhibit 1.

    b. With regard to visible emissions and opacity monitoring, the permittee shall report all excess opacity and the percentage of operating hours for which opacity monitoring data have not been obtained. If no excess opacity occurred or opacity monitoring data were obtained for all operating hours during the reporting period, the semi-annual report shall contain a statement as such. All semi-annual opacity monitoring reports shall conform to

the Opacity Monitoring Report Format as agreed upon with the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18.

(9 VAC 5-170-160 and 9 VAC 5-40-50)

NOTIFICATIONS

43. **Notifications** - The permittee shall furnish written notification to the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18 (or by email, which shall be deemed postmarked when sent) of:

    a. The actual date on which the each merged stack project is completed within 30 days after such date.

    b. The anticipated date of continuous monitoring system performance evaluations postmarked not less than 30 days prior to such date.

    c. The intention to use continuous opacity monitoring system data results to demonstrate compliance with the applicable visible emission limit during a performance test in lieu of Reference Method 9 (reference 40 CFR Part 60, Appendix A), postmarked not less than 30 days prior to the date of the performance test.

    d. The anticipated date of performance tests of the electric generating facility postmarked at least 30 days prior to such date.

    (9 VAC 5-40-50 and 9 VAC 5-80-850)

GENERAL CONDITIONS

44. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

    a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;

    b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;

    c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and

    d. To sample or test at reasonable times.

    For the purpose of this permit, normal business hours shall be considered to be from 8:00 AM to 5:00 PM Monday through Friday. Nothing contained herein shall make an inspection time unreasonable during an emergency.
    (9 VAC 5-170-130 and 9 VAC 5-80-850)

45. **Maintenance/Operating Procedures** - At all times, including periods of start-up, shutdown, soot blowing, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

    The permittee shall implement the following measures in order to minimize the duration and frequency of excess emissions, with respect to boilers C1, C2, C3, C4, and C5 and electrostatic precipitators HSESP1, HSESP2, HSESP3, HSESP4, and HSESP5 and CSESP1, CSESP2, CSESP3, CSESP4, and CSESP5 and dry sorbent (sodium sesquicarbonate or equivalent) injection system:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

    Records of maintenance and training shall be maintained on-site for a period of five years and shall be made available to DEQ personnel upon request.
    (9 VAC 5-40-20 E and 9 VAC 5-80-850)

46. **Record of Malfunctions** - The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken, and name of person generating the record.
    (9 VAC 5-20-180 J and 9 VAC 5-80-850)

47. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18 of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by email, facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18.

(9 VAC 5-20-180 C and 9 VAC 5-80-850)

48. **Exceedance of Ambient Air Quality Standard** - Regardless of any other provision of this section, the owner of any facility subject to the Regulations for the Control and Abatement of Air Pollution shall, upon request of the Board, reduce the level of operation at the facility if the board determines that this is necessary to prevent a violation of any primary ambient air quality standard. Under worst-case conditions, the Board may order that the owner shut down the facility if there is no other method of operation to avoid a violation of the primary ambient air quality standard. The Board reserves the right to prescribe the method of determining if a facility will cause such a violation. In such cases, the facility shall not be returned to operation until it and the associated air pollution control equipment are able to operate without violation of any primary ambient air quality standard.
(9 VAC 5-20-180 I and 9 VAC 5-80-850)

49. **Permit Suspension/Revocation** - This permit may be revoked if the permittee:

    a. Knowingly makes material misstatements in the permit application or any amendments to it;

    b. Fails to comply with the terms or conditions of this permit;

    c. Fails to comply with any emission standards applicable to a permitted emissions unit;

    d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;

    e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time that this permit is issued;

    f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5 Chapter 80.

    (9 VAC 5-80-1010)

50. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Regional Air Compliance Manager of the DEQ's NRO at the address in Condition 18 of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-940)

51. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-860 D)

SOURCE TESTING REPORT FORMAT

Report Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

Certification

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. *Signed by reviewer

Copy of approved test protocol

Summary

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. *For each emission unit, a table showing:
   a. Operating rate
   b. Test Methods
   c. Pollutants tested
   d. Test results for each run and the run average
   e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

Test Results

1. Detailed test results for each run
2. *Sample calculations
3. *Description of collected samples, to include audits when applicable

Appendix

1. *Raw production data
2. *Raw field data
3. *Laboratory reports
4. *Chain of custody records for lab samples
5. *Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

* Not applicable to visible emission evaluations

Appendix A – Merged Stack Scenarios

Scenario No.	# of Units Operating		Units On
	Merged Stack #1	Merged Stack #4	
1	2	3	1, 2, 3, 4, 5
2	1	3	1, 3, 4, 5
3	1	3	2, 3, 4, 5
4	0	3	3, 4, 5
5	1	3 (Unit 2 goes to Stack 4)	1, 2, 3, 4
6	1	3 (Unit 2 goes to Stack 4)	1, 2, 3, 5
7	1	3 (Unit 2 goes to Stack 4)	1, 2, 4, 5
5A (Note 1)	2	2	1, 2, 3, 4
6A (Note 1)	2	2	1, 2, 3, 5
7A (Note 1)	2	2	1, 2, 4, 5
8	0	3 (Unit 1 goes to Stack 4)	1, 3, 4
9	0	3 (Unit 2 goes to Stack 4)	2, 3, 4
10	0	3 (Unit 1 goes to Stack 4)	1, 3, 5
11	0	3 (Unit 2 goes to Stack 4)	2, 3, 5
12	0	3 (Unit 1 goes to Stack 4)	1, 4, 5
13	0	3 (Unit 2 goes to Stack 4)	2, 4, 5
14	0	2	3, 4
15	0	2	3, 5
16	0	2	4, 5
17	0	2 (Unit 1 goes to Stack 4)	1, 3
18	0	2 (Unit 1 goes to Stack 4)	1, 4

Scenario No.	# of Units Operating		Units On
	Merged Stack #1	Merged Stack #4	
19	0	2 (Unit 1 goes to Stack 4)	1, 5
20	0	2 (Unit 2 goes to Stack 4)	2, 3
21	0	2 (Unit 2 goes to Stack 4)	2, 4
22	0	2 (Unit 2 goes to Stack 4)	2, 5
23	0	1	3 (Note 2)
24	0	1	4 (Note 2)
25	0	1	5 (Note 2)
26	2	0	1, 2
27	1	0	1
28	1	0	2

Note 1: When operating in any of Scenarios 5A, 6A or 7A, permittee shall maintain a generation rate of 55 MW or higher on a 24 hour block (calendar day) average basis across all units in operation. If a unit is forced out, the permittee shall have up to twelve (12) hours to switch to a complying scenario.

Note 2: Prior to installation of any additional or alternate particulate matter controls on Units C1, C2, C3, C4 and C5 pursuant to Exhibit 1, the permittee shall be precluded from operating in a one (1) baseload unit scenario, unless: (1) the permittee experiences an emergency or forced outage situation that unavoidably results in the operation of only one (1) baseload unit; or (2) the permittee engages in a start up from a situation in which no units are operating. In such event, the permittee shall have up to twelve (12) hours either to shut down the single unit operation or bring a second baseload unit on line or duct exhaust from Units C1 or C2 to Merged Stack #4.

Additional scenarios may be authorized after permittee provides modeling data demonstrating that such scenarios will not cause or significantly contribute to an exceedance of any NAAQS, for any pollutant, including PM-2.5. Permittee shall submit the applicable portions of a Form 7 application or written equivalent to request a permit modification to incorporate such scenarios.

EXIBIT 1
PROJECT SCHEDULE AND AGREEMENT
JULY 17, 2008

PROJECT SCHEDULE AND AGREEMENT

This Project Schedule and Agreement ("Agreement") is entered into between Mirant Potomac River, LLC ("Mirant") and the City of Alexandria, Virginia (the "City"), acting through its duly elected officials or designated employees, this ___ day of July, 2008, and establishes a process and mutual obligations that the parties agree to undertake with respect to Mirant's Potomac River Generating Station (the "Facility") and the implementation of emissions control and technology, particularly with respect to fine particulate matter emissions ("$PM_{2.5}$") from the Facility's stacks and fugitive particulates from the site.

WHEREAS, Mirant owns and operates the coal-burning Facility, which generates electrical power for the PJM grid system in the Mid-Atlantic region; and

WHEREAS, the Facility is adjacent to a residential neighborhood in the City; and

WHEREAS, Mirant desires to merge the Facility's stacks and install and use appropriate pollution control technology; and

WHEREAS, the City is authorized pursuant to Section 2.05(f) of the Charter of the City (the "Charter") to enter into cooperative agreements with any corporation to discharge any function or power vested by the Charter; and

WHEREAS, Section 2.01 of the Charter grants the City such other powers which in the opinion of the City Council of the City (the "Council") promote the general welfare of the City and the health and safety of its inhabitants; and

WHEREAS, the City desires to protect the public health of its residents and visitors by improving ambient air quality through the reduction of emissions of harmful pollutants from the Facility; and

WHEREAS, Mirant and the City desire a state operating permit, which comprehensively regulates the Facility's operations and pollutant emissions consistent with and fully protective of the National Ambient Air Quality Standards ("NAAQS"); and

WHEREAS, Mirant and the City desire to resolve conflicts between them regarding the Facility and its impacts on ambient air quality through this Agreement and the issuance by the Virginia State Air Pollution Control Board (the "Board") of a mutually acceptable, comprehensive state operating permit authorizing two stack operation (the "Permit"); and

WHEREAS, Mirant has agreed to deposit thirty-four million dollars ($34,000,000.00) in an interest bearing escrow account ("Escrow Account") pursuant to the terms of an escrow agreement for the purpose of implementing air pollution control technology to reduce stack and fugitive particulate matter emissions from the Facility (the "Project"); and

WHEREAS, upon completion of the Project, the balance of the funds in the Escrow Account, if any, shall be used for additional air pollution controls at the Facility or air quality enhancement at other locations in the City ("Supplemental Project"); and

WHEREAS, the parties intend that the City shall instruct Mirant with respect to the expenditure of the funds in the Escrow Account and the selection of the pollution control technology to be installed at the Facility, consistent with the safety and structural integrity of the

Facility and subject to the approval of the Board (or the Virginia Department of Environmental Quality ("DEQ") if it has been given such authority by the Board or the General Assembly); and

WHEREAS, on July 1, 2008, the Council has adopted a motion to enter into this Agreement, based on its opinion that the Agreement promotes the general welfare of the City and the health and safety of its inhabitants.

NOW THEREFORE, the parties agree as follows:

1. The foregoing recitals are incorporated into and made a part of this Agreement as though they were fully set forth in this Section 1 and constitute the representations, findings and understandings of Mirant and the City.

2. The Project shall consist of capital improvements at the Facility intended to lessen the Facility's impact on ambient air quality consistent with and fully protective of the NAAQS by reducing:

(i) $PM_{2.5}$ emissions from each of the five (5) units (C1, C2, C3, C4 and C5) at the Facility; and

(ii) fugitive particulate matter from the Facility site.

3. Neither the City nor Mirant shall have any obligation under this Agreement unless and until the Board issues (or directs DEQ to issue) a mutually acceptable Permit as described herein.

a. If the Permit or the stack merge and related dispersion credits is not appealed or challenged in litigation within thirty-five (35) days of the issuance of the Permit by the Board or DEQ, Mirant shall deposit thirty-four million dollars ($34,000,000.00) into an interest-bearing Escrow Account. References to the $34 million Escrow Account shall include accrued interest. Mirant will not spend more than Escrow Account to complete the Project, except as provided in Paragraphs 11 and 14.

b. If the Permit or the stack merge and related dispersion credits is appealed or challenged in litigation and Mirant proceeds with construction of the stack merge, Mirant shall deposit the $34 million into the Escrow Account.

c. Once the $34 million Escrow Account has been established and an Engineer has been selected, the City agrees not to challenge the dispersion credits for the stack merge project, provided Mirant is in compliance with the terms of this Agreement and the provisions of the Permit.

d. If the stack merge and/or related dispersion credits or the Permit are challenged, the accrued interest on the Escrow Account funds shall be paid to Mirant until the challenge is defeated. If the Permit appeal or other legal challenge is successful in precluding the application of emissions dispersion credits from the stack merge, Mirant may terminate the Project and the balance of the funds (including accrued interest) in the Escrow Account shall be returned to Mirant.

e. If the Permit appeal or other legal challenge is not successful, Mirant shall return the interest from the date of deposit to the Escrow Account principal for use on the Project.

f. Upon approval of this Agreement by the City Council, the City agrees to use good faith efforts to publicly support the Agreement and the Permit.

4. Selection of the Engineer and City's Consultant.

a. In consultation with Mirant, the City shall select an engineering firm (the "Engineer") from the list included as Attachment A (and other comparable firms that the parties may identify) to conduct a two-phase Engineering Study to evaluate:

(i) the feasibility and cost of fugitive dust controls for the Facility site ("Phase I") and

(ii) (a) installing baghouse or other technologies in the current housings for the hot- and/or cold-side precipitators on units C1, C2, C3, C4 and C5, taking into account the cost of retrofitting such baghouses on these boilers and any impacts to the structural integrity of the boilers and the Facility;
(b) improving the performance and reliability of existing hot- and/or cold-side precipitators such as, but not limited to, supercharging, gas conditioning, or increased collection area and/or residence time; and
(c) other commercially available technologies identified by the Engineer that may be applied in any location of the Facility, including but not limited to hybrid $PM_{2.5}$ control systems such as COHPAC™, Advanced Hybrid Filter™, Max 9 Electrostatic Fabric Filter™, or polishing baghouses serving combined stacks (collectively "Phase II')

b. The Engineer shall be selected by September 30, 2008 at which time Mirant shall engage the Engineer. Mirant will ask the Engineer to complete Phase I of the Engineering Study by November 30, 2008 and submit the draft Phase II Engineering Study for review by April 15, 2009. The City and Mirant shall meet regularly with the Engineer during both phases of the Engineering Study. The Engineer shall determine the proposed schedule for completion of the Project. The cost of both Phase I and Phase II of the Engineering Study shall be applied against the Escrow Account.

c. The City shall engage a third-party consultant (the "City Consultant") (who the City will cause to sign a confidentiality agreement that is mutually acceptable to all parties) to facilitate its review of the Engineering Study and the implementation of the Project the cost of which shall be applied against the Escrow Account. Provided it signs a confidentiality agreement that is mutually acceptable, this third-party consultant will be provided all information that the Engineer has obtained from Mirant.

d. The City shall not select a Project that results in a net increase in emissions.

5. Implementation of Phase I of the Project shall be as follows:

a. Based on the results of Phase I of the Engineering Study and the City's instructions, Mirant shall use the funds from the Escrow Account to improve the Facility to reduce fugitive dust emissions. As instructed by the City the improvements may include the following new or enhanced controls (collectively "Fugitive Dust Controls") to the extent that the work can be completed for no more than two million dollars ($2,000,000.00) of the Escrow Account:

(i) a new fly ash loader for controlling fugitive dust;

(ii) a dust suppression system as identified in the Engineering Study at all fly ash silos, and may include full or partial enclosure of the ash loading area and/or a fogging system;

(iii) membrane material on the inactive portions of the coal pile;

(iv) replacement of the Facility perimeter fence along the entry road paralleling the railroad tracks fence with a 10-foot chain link fence with durable wind screening;

(v) a street sweeper with a vacuum, rather than using wet suppression;

b. All costs for design, engineering, procurement, materials, shipping and delivery, site preparation, construction, fabrication, installation and initial testing ("Construction Costs") for work under this Paragraph 5 shall be applied against the Escrow Account. Mirant will use commercially reasonable efforts to install these improvements within twelve months of completing Phase I of the Engineering Study. To the extent feasible, Mirant shall seek competitive bids for the Fugitive Dust Controls. These Construction Costs shall not exceed two million dollars ($2,000,000.00); and

c. To supplement its existing particulate matter monitoring program, Mirant shall install and operate an additional ambient PM2.5 monitor, either along the southwest or western side of the site or as otherwise agreed to by the City and Mirant, to provide additional data to the City and Mirant on the impact of the Fugitive Dust Controls. Mirant shall use commercially reasonable efforts to install the additional monitor by December 31, 2008. The operation of the monitor shall cease two (2) years after the completion of the Fugitive Dust Controls. The cost of procuring, installing and operating the monitor shall not be charged against the Escrow Account.

6. The Implementation of Phase II of the Project shall be as follows:

a. The engineering agreement shall require the Engineer to submit a draft report to the City, Mirant and DEQ, all of which shall have forty-five (45) days to submit

comments for consideration by the Engineer. At this time and throughout the Project, Mirant shall include in its comments any issues identified at that time related to safety or structural integrity. Mirant shall have a continuing obligation to identify and report to the Engineer and the City any safety or structural integrity issues as they become known. The engineering agreement shall further provide that the Engineer finalize Phase II of the Engineering Study sixty (60) days after the end of the forty-five (45) day comment period and that the Engineer address comments provided by the City, Mirant and DEQ. Subject to a confidentiality agreement between the parties and to facilitate the schedule, Mirant shall provide timely access, data, documentation, prior studies, and other materials, including materials relating to the stack merge, that the Engineer and the City's Consultant reasonably and appropriately requests to facilitate the performance of the work set out in the engineering agreement and to satisfy the obligations set out in this Agreement. Prior to completion of the stack merge, nothing herein shall grant to the Engineer or the City any rights with respect to altering the engineering, design or construction of the stack merge. After completion of the stack merge and to facilitate the implementation of the Project, the Engineer may recommend a reasonable modification of the stack merge provided that such modification does not adversely impact the safety or structural integrity of the Facility or the operation of the stack merge. Such modification shall be charged against the Escrow Account.

b. Based on the Engineer's evaluation and cost estimates as provided in Phase II of the Engineering Study, the City will select its preferred proposed technology improvement to the $PM_{2.5}$ controls for each of the five (5) generating units and the City and Mirant shall recommend to the Board and DEQ proposed technology improvements to the $PM_{2.5}$ controls for each of the five (5) generating units. Such improvements shall not compromise the safety and structural integrity of the Facility. Once the Board or DEQ agrees to the recommended technology and issues any required permits or permit modifications, the Engineer shall prepare a Bid Package for such improvements and solicit firm bids from at least two nationally recognized engineering, procurement and construction contractors ("EPC Contractors"). The Bid Package will be used to solicit turn-key, fixed-price, firm bids with a guarantee of emission rate and all customary commercial guarantees of performance from the EPC Contractors for the materials and installation of the agreed upon improvements. Consistent with the provisions set out in this Agreement, the City, Mirant and the Engineer shall select the appropriate EPC Contractor for all work related to the selected $PM_{2.5}$ control technology. If the EPC Contractors' bid exceeds the amount of the funds in the Escrow Account, the Engineer will develop a new Bid Package for the implementation of appropriate alternative control technologies.

7. Within thirty (30) days of the execution of this Agreement, Mirant shall ask DEQ to include the following limits and requirements in its Permit:

a. After completion of the stack merge and until completion of the Project and development of a final $PM_{2.5}$ emissions limit in accordance with Paragraph 9 of this Agreement, each stack shall meet a limit of 0.016 lbs. $PM_{2.5}$/MMBtu

filterable and condensible. Conditional Test Method 40 shall be used to measure $PM_{2.5}$ filterable and Test Method 202, or another equivalent EPA-promulgated method, shall be used to measure condensable $PM_{2.5}$ emissions.

b. Other emission limits shall include: (i) $PM_{2.5}$, filterable and condensable – 207 tons per year and 85 lbs. per hour total from all 5 units combined; PM_{10} – 325 tons per year total from all 5 units combined; and PM_{10} – 0.03 lbs. per MMBtu from each stack.

c. During this interim period, the Facility shall be precluded from operating in a one (1) base unit scenario, unless: (1) the Facility experiences an emergency or forced outage situation that unavoidably results in the operation of only one (1) base unit; or (2) the Facility engages in a start up from a situation in which no units are operating. In such event, Mirant shall have up to twelve (12) hours either to shut down the single unit operation or bring a second base unit on line or duct exhaust from Units C1 or C2 to Merged Stack 4. Consistent with the provisions of the Permit, Mirant shall continuously operate and maintain in good working order each component of the Project as it is completed.

d. Compliance testing for PM_{10} shall be conducted in accordance with the Permit.

e. The first stack test to demonstrate compliance with the $PM_{2.5}$ limit for the interim period set out in this Paragraph 7 shall occur five (5) months after the stack merge is completed and shall follow the standard procedures established by the DEQ for stack tests. If a particular stack does not demonstrate compliance, Mirant shall conduct a root cause analysis, undertake remedial actions and retest such stack within three (3) months. If the retest again does not demonstrate compliance, Mirant shall have a third opportunity to demonstrate compliance within three (3) months. If the third test fails, it shall be considered a violation.

8. Mirant shall provide reasonable notice to the City of all stack tests and allow the City to observe such stack tests. Mirant shall also provide to the City the same reports and data concerning the stack tests that it provides to DEQ within one business day of the submission of such reports and data to DEQ. Mirant will also meet with the City to discuss preliminary and final conclusions regarding the root cause(s).

9. Stack Tests and Modeling

a. Upon completion of the Project, the final $PM_{2.5}$ emissions limits shall be based on demonstration of performance of equipment to control emissions based on the results of stack tests conducted pursuant to the standard procedures established by DEQ for such tests. Following a reasonable shakedown period recommended by the EPC Contractor, a total of nine (9) performance stack tests shall be conducted over a period of two months prior to Mirant taking possession of the Project from the EPC Contractor. The final $PM_{2.5}$ limits shall be set by DEQ and approved by the Board based on the performance stack test results. No later than 60 days after receipt of the last stack test report, Mirant shall apply for a modification of the Permit consistent with the results of stack testing. Mirant shall provide

reasonable notice to the City of all stack tests and allow the City to observe such stack tests. Mirant also shall review the results of the stack tests with the City and provide the City the same reports and data concerning the stack tests that it provides to DEQ within one (1) business day of submission of such reports and data to DEQ. Compliance with the final $PM_{2.5}$ limits shall be determined based on stack tests conducted every six months for the first two years, and once every two years thereafter. Conditional Test Method 40 shall be used to measure $PM_{2.5}$ filterable and Test Method 202 or another equivalent EPA-promulgated method shall be used to measure condensible $PM_{2.5}$ emissions for the performance stack tests and the compliance stack tests. The cost of these stack tests shall not be applied against the Escrow Account.

b. The final $PM_{2.5}$ emissions limits shall demonstrate compliance with the $PM_{2.5}$ NAAQS based on air quality dispersion modeling of $PM_{2.5}$ emissions from the Facility, including but not limited to filterable and condensible emissions, using the available model promulgated by the U.S. Environmental Protection Agency ("EPA"). The protocol for the modeling analysis shall be approved for this Facility by the Board or DEQ, as well as by EPA.

10. Costs applied against the Escrow Account shall not include items that are not required for completion of the Project or the Fugitive Dust Controls described above. These are:

a. Any upgrades, modifications, or improvements to the Facility that are currently required or planned for at the Facility and/or necessitated by the stack merge;

b. Improvements to the ash handling equipment other than those described in this Agreement;

c. Operation and maintenance, including spare parts that are not used in the Project or Fugitive Dust Controls;

d. Production losses and/or start-up costs;

e. Mirant employee labor;

f. Revised emission monitoring, communication, security or lighting, unless integral to the Project;

g. Installation of CO and PM CEMS;

h. Additional warranties beyond those that are customary; and

i. Costs identified by the Engineer as neither necessary nor appropriate for the Project.

11. Any increases in the cost of installing baghouses in the cold-side ESPs, hot-side ESPs or baghouses serving combined stacks that are due to Mirant's deviation from the current schedule or design of its stack merge project shall be excluded from the costs of the Project and shall not

be applied against the Escrow Account, but shall be borne by Mirant. Upon execution of this Agreement, Mirant shall give the City's Consultant access to all drawings for the stack merge construction. The Engineer shall estimate such additional costs and provide this information to Mirant and the City. If the Engineer determines that the stack merge project requires or required infrastructure or building upgrades to satisfy the building integrity or applicable code requirements, the Engineer shall estimate such additional costs and provide this information to Mirant and the City. Mirant shall then be responsible for all costs related to such upgrades and such costs shall not be applied against the Escrow Account. Any dispute involving the Engineer's decisions under this Paragraph 11 shall be submitted to binding arbitration under the rules and procedures of the American Arbitration Association, with the non-prevailing party responsible for all arbitration fees.

12. Mirant and the City shall each designate a Project Liaison to handle all communications between the parties during the Project. At any time, either Liaison may convene a technical advisory committee comprised of two engineers from each party (the "Committee"). The Committee shall be chaired by the Engineer.

13. If Mirant and the City cannot reach agreement on any issue arising pursuant to this Agreement or the implementation of the Project, including issues related to a determination of impacts on safety, the parties shall engage in mediation. The parties shall select a mediator who has experience in large industrial construction projects. If the parties cannot agree on a mediator, the American Arbitration Association shall select such mediator. If the mediator determines that a party has acted unreasonably, the other party may seek guidance from the Board or its designee. Each party shall pay its own mediation costs, and the parties shall equally divide the costs of the mediator. The parties agree that in the course of mediation it may be necessary to disclose information or materials considered confidential to facilitate the mediation and eventual decision-making. In such case, the parties agree to be bound by the provisions of a confidentiality agreement with respect to any data or materials disclosed.

14. Deviations from the Engineer's Schedule..

a. If the Project deviates from the Engineer's schedule because Mirant has unreasonably caused a delay as finally determined through litigation or by arbitration if the parties agree to arbitration, and the cost of construction increases as a result of such delay, Mirant shall be responsible for all such increased costs or pay into the Escrow Account $7,500.00 per week of delay attributable to such delay caused by Mirant's conduct, whichever is greater.

b. If the Project deviates from the Engineer's schedule because the City has unreasonably caused a delay as finally determined through litigation or by arbitration if the parties agree to arbitration, and the cost of construction increases as a result of such delay, the City shall be responsible for all such increased costs (which shall be paid from the Escrow Account provided there are sufficient funds remaining) or pay into the Escrow Account $7,500.00 per week of delay attributable to such delay caused by the City's conduct, whichever is greater. If such payments due from the City are in excess of the Escrow Account and are not otherwise paid by the City, Mirant may elect to terminate the Project and this Agreement.

c. Force Majeure principles shall apply when determining the cause of a delay. For purposes of this Agreement, Force Majeure excuses delay caused by earthquake, flood, other acts of God, war, strike, material shortage, declaration of emergency by a government agency or other such circumstance beyond the control of the party asserting Force Majeure control. That party must show that such circumstances resulting in delay were beyond its control and not due to a lack of good faith or diligence on its part.

15. Mirant shall grant the City and the Engineer reasonable access to the Facility to monitor implementation of the Project.

16. Mirant will work with the City to establish a process and dedicate resources to resolve community complaints and inform the City about any operational issues related to the Project. Mirant will grant the City reasonable access to the Facility if such a complaint arises.

17. Mirant shall provide the City with access to all correspondence and communication between Mirant and the Engineer or the EPC Contractor and allow the City to participate in all meetings between Mirant and the Engineer or the EPC Contractor. Mirant shall take reasonable efforts to schedule all meetings in connection with the Project to take place in Alexandria.

18. During Project implementation, the Engineer shall be asked to provide monthly status reports to Mirant, the City, and DEQ, including work completed, expenses incurred, and activities planned for the following month. The Engineer shall review all disbursements to ensure that all costs are properly allocated consistent with this Agreement and the Project proposal.

19. After completion of the Project and with the approval of the Board or DEQ, the City shall allocate any remaining portion of the Escrow Account funds to the Supplemental Project, *i.e.*, other particulate matter reduction or energy efficiency projects at the Facility or in other locations in Alexandria.

20. Mirant shall dismiss with prejudice (i) its pending Virginia Administrative Procedures Act appeal filed in the Richmond Circuit Court and presently before the Virginia Court of Appeals regarding the Board's or DEQ's decisions to issue the June 2007 operating permit; (ii) its pending Virginia Administrative Procedures Act appeal filed in the Richmond Circuit Court regarding the Board's decision to require a permit for the proposed stack merge; and (iii) the appeal filed in the Alexandria Circuit Court related to Mirant's document requests submitted to the City, forty (40) days after issuance of the Permit by the Board or DEQ, provided a Notice of Appeal is not filed by any person. If a Notice of Appeal is filed but legal action is not taken within the required time limit, then Mirant shall dismiss with prejudice the above suits seventy (70) days after issuance of the Permit.

21. Upon approval of this Agreement, the City shall issue any permits with reasonable conditions required for the stack merge for which a complete application has been submitted and such applications comply with the requirements of law. The City will take all reasonable measures to expeditiously grant Mirant any necessary permits (e.g., building permits, hauling permits) with reasonable conditions related to the work described in this Agreement (including work for electrical upgrades, installation of two transformers adjacent to the plant and an additional rail spur), the construction of the stack merge and the two-stack operating permit issued by the Board

or DEQ. If the City unreasonably delays the issuance of any such permit, the obligation of Mirant with respect to the delayed permit will be tolled on a day-for-day basis for each day of delay.

22. The City recognizes that this Agreement and the implementation of the Project are intended to satisfy pending disputes regarding previous operations at, and emissions and impacts from, the Facility and that Mirant's adherence to this Agreement shall resolve these disputes. The City agrees to cooperate with the implementation of the stack merge, the Project and other improvements required by the Project and agrees not to take any action to hinder their completion. The City does not release or waive any claims relating to future compliance by Mirant or the Facility with federal, state or local laws, but agrees that the construction and completion of the projects referred to in this Agreement will not alter the Facility's non-complying use status. While reserving the right to monitor the Facility's operations and to enforce the terms of this Agreement, the City will not initiate any judicial, administrative or other actions against Mirant for its activities in furtherance of and compliance with this Agreement.

23. Mirant shall install CO and PM Continuous Emissions Monitors ("CEMS") on both merged stacks no later than twelve (12) months after issuance of the Permit. The Permit shall determine the timing for the calibration and certification of the CEMS. All CEMS reports and hourly data provided to DEQ shall be provided to the City within one business day of their submission to DEQ. For a period of one (1) year after the CEMS are certified, Mirant shall submit to the City the hourly data on a monthly basis in electronic format one month in arrears. Subsequent to this year period, upon reasonable request by the City, Mirant shall provide the City such hourly data in three (3) month increments. The costs associated with the CO and PM CEMS, including procuring, installing, certifying and operating costs, shall not be applied against the Escrow Account.

24. Upon execution of this Agreement, Mirant shall relay to the City existing records of 5-minute average sulfur dioxide ("SO_2") ambient data at each of Mirant's six (6) ambient SO_2 monitors from the initial monitoring data (collected starting April 2007) to the present, and continue to do so throughout the SO_2 ambient monitoring program.

25. The City and Mirant agree to a two-stack operating Permit for the Facility that incorporates the following:

a. Interim particulate matter emissions limits and compliance procedures as established in Paragraph 7 of this Agreement;

b. Final particulate matter emissions limits as established in Paragraph 9 of this Agreement;

c. Beginning January 1, 2009, SO_2 emissions limited to .36 lbs/MMBtu for 3-hour and 0.30 lbs/MMBtu for 24-hour averages; Facility-wide SO_2 emissions limited to 1,906 lbs/hour and 3,813 tons/year;

d. Mirant shall apply to DEQ for a Permit prior to the use by the Facility of any sorbent other than trona except for testing, Mirant will notify the City of such testing and allow the City to observe the testing;

e. Reasonable right of access to the Facility to allow the City to observe implementation of the Project and observe all stack tests referenced in this Agreement.

f. Coal sulfur content shall be limited to 0.9% on a calendar quarter average basis by weight.

26. This Agreement shall terminate upon completion of the Project described herein except with respect to the reporting requirements set out in Paragraphs 23 and 24 of this Agreement. The City's and Mirant's obligation to cooperate with each other shall continue so long as Mirant continues to maintain and operate the equipment and controls required for the Project.

27. Notices. Any notice, request, demand, instruction or other document required or permitted by the provisions of this Agreement to be given or served hereunder or under any document or instrument executed pursuant hereto shall be in writing and (i) sent by first class mail, (ii) personally delivered, (iii) telecopied or (iv) sent by a recognized overnight courier service to the City and the Company, as applicable:

If to the City:
Director, Office of Environmental Quality
Department of Transportation and Environmental Services
City of Alexandria
301 King Street, Room 3000
Alexandria, Virginia 22314-3211

with a copy to:
City Attorney
City of Alexandria
301 King Street, Room 1300
Alexandria, Virginia 22314-3211

If to Mirant:
Mirant Potomac River, LLC
General Counsel's Office
1155 Perimeter Center West
Suite 100
Atlanta, Georgia 30338-5416

with a copy to:
Mirant Potomac River, LLC
Plant Manager
1400 North Royal Street
Alexandria, Virginia 22314

If to the Department of Environmental Quality:
Virginia Department of Environmental Quality
Director, Northern Virginia Regional Office
13901 Crown Court
Woodbridge, Virginia 22193

with a copy to:
Virginia Department of Environmental Quality
Director, Air Quality Division
P.O. Box 1105
Richmond, Virginia 23218

28. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which together shall constitute but one and the same instrument.

29. Governing Law. The parties hereto agree that this Agreement shall be governed by the laws of the Commonwealth of Virginia.

30. Successors and Assigns. This Agreement will be binding upon, inure to the benefit of and be enforceable by the parties and their respective successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in one or more counterpart signature pages as of the date first above written.

CITY OF ALEXANDRIA, VIRGINIA

Date: 7-14-08

By: _____
Title: City Manager

Approved as to form:

_____
City Attorney

Date: July 17, 2008

MIRANT POTOMAC RIVER, LLC

By: _____
Title: President

ATTACHMENT A

List of Engineers

1. Sargent and Lundy
2. Stone and Webster
3. Black and Veatch
4. Burns and Roe
5. Burns and McDonnell
6. Lockwood Green – CH2M Hill
7. Fluor Daniel
8. The Washington Group