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BY E-MAIL

Richard D. Langford, Chairman
Bruce C. Buckheit
John N. Hanson
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Vivian E. Thomson
Air Pollution Control Board
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Re: Potomac River Generating Station, Alexandria, Virginia

Dear Honorable Board Members:

The City of Alexandria, Virginia ("Alexandria") appreciates the opportunity to come before the Air Pollution Control Board ("Board") to continue discussion of the issues related to Mirant Corporation's Potomac River Generating Station. On March 26, 2007, the Board instructed the Department of Environmental Quality ("DEQ"), Mirant and Alexandria to attempt to resolve their differences with respect to an operating regime for the Potomac River plant. Despite productive and open discussions on three separate occasions since the March 26th Board meeting, there is not yet a compromise agreement.

Alexandria interpreted the Board's instructions to involve a two-step process. The first and more pressing step is to reach agreement on the implementation of a short-term, interim Order to take effect upon the expiration on June 1, 2007 of the U.S. Environmental Protection Agency's Administrative Consent Order. The second step is discussion and agreement on long-term issues and operating conditions that would be encompassed in a comprehensive operating permit for the plant which would contain limits that ensure that emissions from the plant do not result in modeled exceedances of the National Ambient Air Quality Standards ("NAAQS") for all criteria pollutants and the applicable State Air Toxic Pollutant Standards.

Throughout the discussions of the past week and a half, Alexandria focused on the development of the short-term, interim Order that would become effective on June 2, 2007. At this time, without further analysis, discussion and mutual commitments, it is premature to agree

on long-term issues for a comprehensive permit, but Alexandria is willing to continue such analysis and discussion with DEQ, Mirant and the Board on these issues. In furtherance of a short-term, interim Order, therefore, Alexandria hereby submits the attached draft Order for the Board's consideration. As an alternative, as suggested by Alexandria at the March 26th Board meeting, the Board could authorize the plant's operations pursuant to the 2004 DEQ Consent Order and NAAQS compliance operating scenarios attached hereto as Appendix 1 and pending the issuance of a comprehensive operating permit.

The draft Order contains provisions that Alexandria submits are necessary for the protection of the public health. Although Alexandria remains concerned over the use of Trona, the draft Order balances in the short-term the uncertain impacts of Trona's use against the need to reduce sulfur dioxide ("SO_2") emissions. In summary form, Alexandria's substantive issues as set out in its Order are as follows:

- Maintain an SO_2 emissions rate of 0.40 lb/MMBtu based on a calendar day average and 0.35 lb/MMBtu based on a 30-day rolling average with use of predictive modeling with approved EBDs until September 30, 2007; during line outage situations (June 2007 only)—0.55 lb/MMBtu.

- After September 30, 2007, operation shall be based on a NAAQS-compliance scenario with non-varying pre-defined emissions limits as set out in Appendix 1 of DEQ's proposed Consent Order. This operating regime shall expire upon DEQ's issuance of a comprehensive operating permit.

- On a forecasted Air Quality Action Day with AQI >100 (Codes Orange, Red and Purple), predictive modeling shall not be allowed and operations shall be pursuant to a NAAQS Compliance operational scenario as established in Appendix 1 of the DEQ's proposed Consent Order.

- No enforcement waiver for any exceedance of the NAAQS for the duration of the Order.

- Mirant shall monitor hourly SO_2 ambient concentrations. If in any one hour, the ambient concentrations exceed 800$\mu g/m^3$, Mirant shall reduce operations until such time as the SO_2 hourly average concentrations are maintained at or less than 800 $\mu g/m^3$.

- Mirant shall install PM CEMs on all five stacks and provide hourly data to DEQ and Alexandria on a weekly basis (in lb/hour and lb/MMBtu for each boiler).

- Mirant shall operate a total of ten SO_2 monitors, five continuous $PM_{2.5}$ monitors and five speciated $PM_{2.5}$ reference-method monitors at locations of maximum modeled impacts.

- Mirant shall analyze post-trona flyash that includes, but is not limited to, particle size distribution, elemental analysis, pH, alkalinity and TCLP sampling on a weekly basis.

- Mirant shall provide the following data in electronic format to DEQ and Alexandria:

  (i) 6-min opacity data for each boiler for pre- and post-trona for 2003, 2004, 2005 and 2006;

  (ii) hourly CO CEMS data for each boiler for 2003, 2004, 2005 and 2006;

  (iii) hourly operational data for each boiler for 2003, 2004, 2005 and 2006 including coal firing rate, trona injection rates, stack exhaust temperature and MW output.

  (iv) all monitoring data including 5-min and hourly SO_2 and hourly $PM_{2.5}$ on a weekly basis.

Finally, Alexandria reiterates its request that the Board establish (i) a Local Air Pollution Control District comprising those areas of the City impacted by the Potomac River plant's emissions and site activities and (ii) a Local Air Pollution Control Committee with jurisdiction in the Local District to assist in implementing and ensuring compliance with the air monitoring programs.

Sincerely,

John B. Britton

John B. Britton
Schnader Harrison Segal & Lewis LLP
Counsel for the City of Alexandria

Ignacio B. Pessoa
City Attorney
City of Alexandria

Attachments

cc: David K. Paylor, Director (via e-mail)
Michael G. Dowd, DEQ (via e-mail)
James R. Hartmann, Alexandria (via e-mail)
Richard J. Baier, Alexandria (via e-mail)

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD

ORDER

ISSUED TO
MIRANT POTOMAC RIVER, LLC

Registration No. 70228

SECTION A: Purpose

This is an Order issued under the authority of Va. Code §§ 10.1-1307D and 10.1-1307.1, for the purpose of ensuring compliance with ambient air quality standards incorporated at 9 VAC Chapter 30, 9 VAC 5-20-180I, and Va. Code § 10.1 -1307.3(3) at the Potomac River Power Station located in Alexandria, Virginia.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meanings assigned to them below:

1. "Va. Code" means the Code of Virginia (1950), as amended.

2. "Board" means the State Air Pollution Control Board, a permanent collegial body of the Commonwealth of Virginia as described in Va. Code §§ 10.1-1301 and 10.1-1184.

3. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia as described in Va. Code § 10.1-1183.

4. "Director" means the Director of the Department of Environmental Quality.

5. "EPA" means the United States Environmental Protection Agency.

6. "The Order" or "this Order" means this document.

7. "ACO" means the Administrative Compliance Order by Consent issued by EPA to Mirant on June 1, 2006, resolving EPA's December 22, 2005, Notice to Mirant alleging that Mirant did not immediately undertake the necessary action to protect human health and the environment in violation of 9 VAC 5-20-180I and the federally–enforceable Virginia State Implementation Plan.

8. "Order by Consent" means the consent order entered into between Mirant and the Department effective September 23, 2004, that required Mirant to perform a dispersion modeling analysis to assess the effect of Downwash (the "downwash study") of emissions from the Facility and

further required Mirant devise with the Department and comply with a plan to eliminate any exceedances of the NAAQS.

9. "Mirant" means Mirant Potomac River, LLC, a limited liability company certified to do business in Virginia. Mirant Potomac River, LLC is owned by Mirant Mid -Atlantic, LLC.

10. "Facility" means the Potomac River Generating Station owned and operated by Mirant located at 1400 North Royal Street, Alexandria, Virginia, 22314. The Facility is a five unit, 488 MW coal-fired electric generating plant.

11. "The Permit" means the Stationary Source Permit to Operate issued by DEQ to the Facility on September 18, 2000, pursuant to 9 VAC 5-80-800, *et seq.*

12. "Marina Towers" means a multiple -unit residential condominium building located at 501 Slaters Lane, Alexandria, Virginia, in proximity to the Facility.

13. "Downwash" means the effect that occurs when aerodynamic turbulence induced by wind over nearby structures causes pollutants from an elevated source (such as a stack) to be mixed rapidly toward the ground resulting in higher ground-level concentrations of pollutants.

14. "NAAQS" means the primary National Ambient Air Quality Standards established by EPA for certain pollutants, including sulfur dioxide (SO_2), nitrogen dioxide (NO2), carbon monoxide (CO), ozone, and particulate matter 10 microns across (PM_{10}), and particulate matter 2.5 microns across ($PM_{2.5}$), pursuant to § 109 of the federal Clean Air Act, 42 USC § 7409, set forth at 40 CFR Part 50 and incorporated at 9 VAC Chapter 30. NAAQS are established at concentrations necessary to protect public health with an adequate margin of safety.

15. "State Air Toxic Pollutant Standards" means the requirements of Virginia's "Emission Standards for Toxic Pollutants From New and Modified Sources" set forth at Article 5, 9 VAC 5-60-300, et seq.

16. "SO_2" means sulfur dioxide, which is a pollutant resulting from the combustion of fossil fuels and a precursor to the formation of secondary particulate matter.

17. "NOx" means oxides of nitrogen, which are pollutants resulting from the combustion of fossil fuels and a precursor to the formation of ozone and secondary particulate matter.

18. "PM_{10}" means particulate matter with an aerodynamic diameter less than or equal to 10 micrometers and is a pollutant resulting from, among other things, the combustion of fossil fuels.

19. "$PM_{2.5}$" means particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers and is a pollutant resulting from, among other things, the combustion of fossil fuels.

20. "HCl" means hydrogen chloride, which is a toxic pollutant under the State Air Toxic Pollutant Standards.

21. "HF" means hydrogen fluoride, which is a toxic pollutant under the State Air Toxic Pollutant Standards.

22. "Stack Merge Project" means the proposal by Mirant to reconfigure and merge the Facility stacks and exhaust system in a manner that would reduce Downwash in most cases and otherwise abate the impact of emissions on the area surrounding the Facility for some operational scenarios, while for other operational scenarios downwash and impacts on the area surrounding the Facility may increase.

23. "AERMOD Default" means Version 04300 of the AERMOD computer model using BIP PRIME derived direction-specific dimensions, currently recommended for use by EPA in settings with downwash.

24. "AERMOD EBD" means the most recent EPA-approved version of AERMOD computer model with modified direction-specific building dimensions derived from the Wind Tunnel Study.

25. "Wind Tunnel Study" means a study undertaken by Mirant pursuant to the ACO using a physical model, as outlined in CPP Wind's Wind Tunnel Model Evaluation protocol, dated January 17, 2006, which has been submitted to EPA for approval and conducted to derive alternatives to AERMOD-Default direction-specific effective building dimensions for the Facility.

26. "DOE" means the United States Department of Energy.

27. "DOE Order" means Order No. 202 -05-3, issued by the Department of Energy on December 20, 2005 in Docket No. EO-05-01, in response to an Emergency Petition and Complaint filed by the District of Columbia Public Service Commission, as subsequently modified and extended by DOE.

28. "Line Outage Situation" means that one or more of the 230 kV transmission lines serving the Central D.C. area are out of service due to a planned or unplanned outage, and that PJM directs the Facility to operate pursuant to the DOE Order.

29. "Modeled NAAQS Exceedance" means a modeled 3-hour average sulfur dioxide concentration which, when a background concentration of 238.4 micrograms per cubic meter is added, exceeds 1,300 micrograms per cubic meter; or a modeled 24-hour average sulfur dioxide concentration which, when a background concentration of 55 micrograms per cubic meter is added, exceeds 365 micrograms per cubic meter; or a modeled 24-hour PM_{10} concentration which, when a background concentration of 45 micrograms per cubic meter is added, exceeds 150 micrograms per cubic meter.

30. "Model Evaluation Study" or "MES" means the study submitted by Mirant and approved by EPA pursuant to the ACO to compare multiple computer model predicted ambient air impacts to actual measured ambient air concentrations for the purpose of determining the best performing computer model in evaluating the effects of the emissions resulting from the operation of the Facility.

31. "MES Protocol" means the protocol submitted by Mirant pursuant to ACO and approved by the EPA for the purpose of preparing the MES.

32. "Monitoring Plan" means the plan submitted by Mirant pursuant to the ACO and approved by EPA for the installation and use of ambient air monitors in the vicinity of the Facility to monitor ambient air quality impacts of the Facility.

33. "Revised Monitoring Plan" means a plan to be submitted by Mirant pursuant to this Order and approved by the Department for the purpose of determining proper location and use of ambient air monitors in the vicinity of the Facility to monitor ambient air quality impacts of the Facility.

34. "Monitors" means the ambient SO_2 and $PM_{2.5}$ air monitors installed in accordance with the Revised Monitoring Plan.

35. "Non-Line Outage Situation" means all periods of time that do not qualify as a Line Outage Situation.

36. "Operating Parameters" means the hourly average MW load of each unit for each hour of that day at the Facility, the hourly average SO_2 emission rate expressed in lb/MMBtu for each unit for each hour of that day, the hourly average stack exhaust velocity for each unit for each hour of that day, and the hourly stack exhaust temperature for each unit for each hour of that day.

37. "Operating Plan" means the December 30, 2005, Operating Plan submitted to DOE by Mirant to respond to the requirement for a compliance plan under the DOE Order.

38. "Predictive Modeling" means the daily use of an approved AERMOD computer model with forecasted weather conditions and planned Operating Parameters for the following day to predict modeled SO_2 and PM_{10} NAAQS compliance and compliance with applicable State Air Toxic Pollutant Standards on a day-ahead basis.

39. "PJM" means the regional transmission organization for the region where the Facility is located which has authority to direct operations at the Facility during Line Outage Situations pursuant to the DOE Order.

SECTION C: Findings of Fact and Conclusions of Law

1. In April 2004, certain residents of Alexandria, Virginia, provided the Department with a document entitled "Screening-Level Modeling Analysis of the Potomac River Power Plant Located in Alexandria, Virginia" prepared by Sullivan Environmental Consulting, Inc., dated March 29, 2004 ("the Sullivan Screening"). The Sullivan Screening was commissioned by residents of the neighborhood surrounding the Facility for the purpose of assessing whether emissions from the Facility may cause exceedances of certain NAAQS at Marina Towers as a result of "downwash." The Sullivan Screening concluded that,"on average, meteorological conditions associated with plume impaction conditions on the Marina Towers condominium were screened to occur as often as 1,200 hours per year."

2. Although the Sullivan Screening did not establish conclusively that emissions from the Facility result in exceedances of the NAAQS at Marina Towers, the Department believed the results of the Sullivan Screening warranted that further comprehensive analysis be conducted in accordance with the Department and EPA approved modeling procedures in order to more fully ascertain the effect of emissions from the Facility on the ambient air quality at Marina Towers and in the area surrounding the Facility.

3. Pursuant to the Order by Consent entered into by Mirant and the Department effective September 23, 2004, Mirant performed a dispersion modeling analysis using AERMOD Default to assess the effect of Downwash (the "downwash study") of emissions from the Facility. The downwash study used computer modeling to predict ambient concentrations of pollutants emitted by the Facility for a full range of regional atmospheric conditions.

4. Mirant provided the results of the downwash study to the Department on August 17, 2005. By letter dated August 19, 2005, the Department informed Mirant that the downwash study demonstrated that emissions from the Facility resulted in, caused or substantially contributed to, modeled violations of the primary NAAQS for SO_2, NO_2, and PM_{10}.

5. The Department's August 19, 2005 letter also requested Mirant to immediately undertake "such action as is necessary to ensure protection of human health and the environment, in the area surrounding the Potomac River Generating Station" pursuant to 9 VAC 5-20-180I.

6. In response to the Department's August 19th letter Mirant shut down all five units of the Facility at midnight on August 24, 2005.

7. On August 24, 2005, the District of Columbia Public Service Commission ("DCPSC") filed an "Emergency Petition and Complaint" with the DOE and the Federal Energy Regulatory Commission ("FERC"), respectively, pursuant to the Federal Power Act ("FPA"), 16 U.S.C. § 824a(c), 824f and 825h, and Section 301(b) of the DOE Organization Act, 42 U.S.C. § 7151(b). The Emergency Petition and Complaint requested that DOE find that an emergency existed under Section 202(c) of the FPA and issue an order requiring Mirant to continue operation of the Facility.•

8. Following additional AERMOD Default modeling and assessment of the downwash study, Mirant re -started Unit 1 of the Facility on September 21, 2005. Additional modeling conducted by Mirant indicated that operation of only Unit 1 with curtailment in its operations would not cause or significantly contribute to any modeled SO_2 and PM_{10} NAAQS exceedances.

9. On December 20, 2005, the Secretary of Energy issued the DOE Order finding that an emergency existed and ordering Mirant to operate in a manner that would not cause or significantly contribute to an exceedance of the NAAQS during Non-Line Outage Situations and to "utilize pollution control equipment and measures to the maximum extent possible to minimize the magnitude and duration of any exceedance of the NAAQS" during Line Outage Situations. The DOE Order, among other things, required Mirant to submit a plan to DOE detailing the steps to be taken to ensure Mirant's compliance with the DOE Order. The DOE Order, modified as discussed below and extended by DOE, remains in effect as of the effective date of this Order.

10. On December 30, 2005, Mirant submitted to DOE an Operating Plan proposing two options for operating under Non-Line Outage Situations. According to Mirant, Option A provided for less electric reliability but would not result in exceedances of the NAAQS; Option B on the other hand provided for greater electric reliability but would have resulted in exceedances of the NAAQS in certain Non-Line Outage Situations (Option A called for fewer operating hours and lower emissions than Option B).

11. By letter dated January 4, 2006, DOE required that Mirant "immediately" implement Option A of the proposed Operating Plan.

12. In accordance with DOE's directive to maximize electric generation while not causing or significantly contributing to a NAAQS violation, Mirant supplemented Option A of the Operating Plan with additional operating configurations and modeling. The supplements (numbered 1 through 5) to Option A called for the use of Trona injection and a blend of low sulfur coal to manage SO_2 emissions. According to Mirant, the supplemental operating scenarios would result in no modeled NAAQS exceedances.

13. By letter dated December 22, 2005, EPA issued a Notice to Mirant alleging that Mirant did not immediately undertake the necessary action to protect human health and the environment required by the Department's August 19, 2005 letter, and that Mirant was therefore in violation of 9 VAC 5 -20-180I and the federally -enforceable Virginia State Implementation Plan ("SIP") for the period of time in which it failed to immediately shut down all the Facility units.

14. On June 1, 2006, EPA issued to Mirant the Administrative Compliance Order by Consent ("ACO"). The ACO gave Mirant the option of conducting an MES for the purpose of determining the best performing computer model in evaluating the effects of emissions from the Facility on the surrounding area. Mirant elected to conduct an MES pursuant to the terms of the ACO.

15. The ACO required Mirant, while conducting the MES, to operate on a daily basis at levels no greater than those that would assure that emissions of SO_2 and PM_{10} from the Facility did not result in localized modeled exceedances of the SO_2 and PM_{10} NAAQS pursuant to Predictive Modeling during Non-Line Outage Situations.

16. The ACO further required Mirant to install at the Facility a system to inject Trona into each unit while it is operating to reduce emissions of SO_2.

17. The ACO further required Mirant to install and continuously operate six SO_2 monitors in the vicinity of the Facility at prescribed preferred or alternate locations. The ACO required Mirant to quickly reduce operations if monitored SO_2 readings reached 80% of the NAAQS.

18. Notwithstanding the provisions discussed above, the ACO required Mirant to operate pursuant to directives from the regional electric grid operator, PJM, during Line –Outage Situations, while taking all reasonable steps to limit emissions of PM_{10}, SO_2 and NOx.

19. By letter dated June 2, 2006, DOE instructed Mirant to operate the Facility in accordance with the requirements of Part IV of the ACO during Non-Line Outage Situations. In that letter, DOE determined that operation of the Facility under Option A pursuant to its January 4, 2006, letter did not provide an adequate level of electric reliability to the District of Columbia and that operation under Part IV of the ACO, in particular under the Model Evaluation Study, was necessary to assure an acceptable level of reliability under the circumstances.

20. Only four of six monitors were placed at the preferred or alternate locations as required in the ACO. At no time have the Facility's operations under Predictive Modeling pursuant to the terms of the ACO under Non-Line Outage Situations resulted in a monitored exceedance of the SO_2 NAAQS at the six monitoring locations or in monitored concentrations of SO_2 approaching 80% of the NAAQS during Non-Line Outage situations. At multiple times during the course of the ACO, the Facility's operations under Follow-up Modeling pursuant to the terms of the ACO resulted in modeled exceedances of the SO_2 NAAQS. For some periods, these modeled violations may have occurred where no monitors were located.

21. During the course of the ACO, the Department, EPA, and Mirant have continued to work to devise a long-term solution to ensure that emissions from the Facility do not harm public health or the environment as directed by the September 23, 2004, Order by Consent and in accordance with Virginia and federal law.

22. Towards this end, the Board has commenced a process to develop and issue Mirant a permit containing emission limits to assure that operation of the Facility does not result in exceedances of the NAAQS or applicable State Air Toxic Pollutant Standards.

23. The ACO expires by its terms on June 1, 2007. Pursuant to 9 VAC 5-20-180I, this Order is intended to extend the Facility's operation under Predictive Modeling on an interim basis until a permit is issued to Mirant with emission limits protective of the NAAQS and the applicable State Air Toxic Pollutant Standards for HCl or HF. This Order shall require the

installation and operation of additional SO_2 monitors as well as the installation and operation of $PM_{2.5}$ monitors in the vicinity of the Facility and PM continuous emissions monitors ("CEMs") on each of the Facility's five (5) stacks. Installation, calibration and operation of such monitors will be outsourced to an independent contractor acceptable to the DEQ at Mirant's expense.

SECTION D: Agreement and Order

Accordingly, the Board, by virtue of the authority granted it in Va. Code §§ 10.1-1307D and 10.1-1307.1 orders Mirant, and Mirant agrees, to perform the actions described in this section of the Order:

Use of Trona

1. Mirant shall maintain and operate a Trona injection system on all five units at the Facility. Mirant shall inject Trona into the exhaust gas of each unit while it is operating for the purpose of complying with this Order. Mirant shall also conduct a comprehensive analysis of post-trona flyash that includes, but is not limited to, particle size distribution, elemental composition, pH, alkalinity and TCLP sampling on a weekly basis. Samples shall not include bottom ash.

Operations in Accordance with Daily Predictive Modeling

2. From June 2, 2007, Mirant shall operate the Facility in a manner that does not cause or significantly contribute to Modeled NAAQS Exceedances by using Predictive Modeling described as follows: By 10 AM each morning, Mirant shall collect actual weather predictions from the National Weather Service for the Reagan National Airport and use them along with planned Operating Parameters as inputs to conduct a computer modeling run for the following day using AERMOD EBD (or AERMOD Default until such time as EPA approves the Wind Tunnel Study in the event EPA has not approved the Wind Tunnel Study by June 2, 2007). If the modeling predicts that Mirant's planned operations for the following day will not result in a Modeled NAAQS Exceedance for SO_2 or PM_{10}, or the applicable State Air Toxic Pollutant Standards for HCl or HF, Mirant may operate on the day modeled in accordance with the modeled Operating Parameters. If the Predictive Modeling indicates that the planned Operating Parameters will result in one or more Modeled NAAQS Exceedances for SO_2 or PM_{10}, or the applicable State Air Toxic Pollutant Standards for HCl or HF, Mirant shall not run under those operating parameters but shall continue to adjust its planned operations and conduct additional modeling runs using the adjusted Operating Parameters to confirm that the adjusted operations will not cause or significantly contribute to a modeled exceedance of a PM_{10} or SO_2 NAAQS or the applicable State Air Toxic Pollutant Standards for HCl or HF for the day modeled.

3. On a forecasted Air Quality Action Day with AQI > 100 (Codes Orange, Red and Purple), Predictive Modeling shall not be allowed and operations shall be pursuant to a NAAQS compliance operational scenario as established in Appendix 1 of this Order.

4. From the effective date of this Order, Mirant shall continue to operate the six (6) SO_2 monitors approved by EPA under the Monitoring Plan pursuant to the terms of the ACO. Mirant shall also install and operate four (4) additional SO_2 monitors, five (5) continuous $PM_{2.5}$ monitors, five (5) speciated $PM_{2.5}$ reference-method monitors (placed at locations of maximum modeled impacts) and PM CEMs on each of the Facility's five (5) stacks. All such monitors shall be installed, calibrated and operational by July 15, 2007. All SO_2 monitors and data loggers will be configured to store and print-out on an hourly basis the 5-minute values used to determine the hourly SO_2 average value. It shall be the responsibility of the selected, outsourced contractor to ensure that the monitors are operated, maintained, and subject to the appropriate QA/QC provisions set forth at Appendix A to 40 C.F.R. Part 58.

5. Within 30 days of the effective date of this Order, Mirant shall submit to the Department a detailed description of how it conducts daily Predictive Modeling, including a description of the National Weather Service weather predictions used by Mirant and how predictions are integrated into other meteorological data. Mirant also shall submit within 30 days of the effective date of this Order to the Department for its approval: 1) a description of how it conducts daily Predictive Modeling and follow-up modeling for HCl and HF; and 2) an explanation of the background air quality numbers used for the daily Predictive Modeling and follow-up modeling for SO_2, PM_{10}, HCl and HF.

PM_{10} and SO_2 Predictive Modeling

6. From June 2, 2007, whenever Mirant operates four or more units, it shall abide by an emission rate of 0.055 lb/MMBtu for PM_{10} for each unit and shall conduct Predictive Modeling using these rates to determine whether operation of the units causes or contributes to Modeled NAAQS Exceedances. Fugitive emissions must also be included in the Predictive Modeling evaluation, with emissions apportioned according to the predicted daily output of the Facility versus its total maximum daily potential output. If the Predictive Modeling indicates that the planned Operating Parameters will result in a Modeled NAAQS Exceedance for PM_{10}, Mirant shall adjust its planned operating scenarios and re -run the Predictive Modeling with an emission rate of 0.055 lb/MMBtu until such time as Mirant confirms through predictive Modeling that the adjusted operations will not cause or significantly contribute to a Modeled NAAQS Exceedance for PM_{10}.

7. From June 2, 2007, Mirant shall abide by an emission rate of 0.40 lb/MMBtu for SO_2 based on a calendar day average and an emission rate of 0.35 lb/MMBtu based on a 30-day rolling average. The average SO_2 emission rates shall be calculated based on the actual SO_2 emissions (lbs) divided by the total heat input (MMBtu) for all operating boilers during the averaging period. Mirant shall conduct Predictive Modeling using rates not to exceed these limits to determine whether operation of the units causes or contributes to a Modeled NAAQS Exceedance. If the Predictive Modeling indicates that the planned Operating Parameters will result in a Modeled NAAQS Exceedance for SO_2, Mirant shall adjust its planned operating scenarios and re-run the Predictive Modeling with a lower emission rate until such time as Mirant confirms through Predictive Modeling that the adjusted operations will not cause or significantly contribute to a Modeled NAAQS Exceedance for SO_2.

SO_2 Control and Monitoring

8. From June 2, 2007, Mirant shall maintain and operate a monitor alert system in the Facility's Control Room that registers an audible alarm if in any one hour the average measured ambient concentration of SO_2 at any Monitor is equal to or greater than 800 $\mu g/m^3$.

    a. During the hour following the sounding of the alarm, Mirant shall make operational adjustments, which may include increasing Trona injection and/or decreasing operation and shall observe the effect of these adjustments on the average, measured ambient concentration of SO_2.

    b. If, at the end of the second hour, the average measured ambient concentration of SO_2 is not equal to or less than 800 $\mu g/m^3$, Mirant shall adjust its operations to conform to the scenarios described in Appendix 1 to this Order until the hourly average SO_2 concentrations are maintained at or less than 800 $\mu g/m^3$.

9. Mirant shall also monitor hourly SO_2 ambient concentrations. If any one-hour period exceeds 800 $\mu g/m^3$, Mirant shall reduce operations until such time as the hourly concentrations are maintained at or less than 800 $\mu g/m^3$.

Follow-Up Modeling

10. From the effective date of this Order Mirant shall perform "follow-up," also known as "hindcast," computer modeling using actual weather conditions and Operating Parameters, and shall report the results to the Department, EPA and the City of Alexandria on a weekly basis, as described below. This "follow-up" modeling will be performed on the Monday following the previous week of operation. If at any time the "follow-up" modeling demonstrates a modeled exceedance of the NAAQS or the applicable State Air Toxic Pollutant Standards, or the Monitors demonstrate an actual exceedance of the NAAQS, or the applicable State Air Toxic Pollutant Standards, Mirant shall report such modeled or monitored exceedance to the Department, EPA and the City of Alexandria within 3 days of the modeled or monitored exceedance, or as immediately as practicable upon receiving the results of follow up modeling or monitoring showing the modeled or monitored exceedance, for a determination by the Department as to whether corrective action is required.

Reporting

11. Commencing June 2, 2007, Mirant shall deliver to the Department, EPA and the City of Alexandria bi-weekly: (1) the modeled input files and results of the daily Predictive Modeling for the preceding month, including for each unit the SO_2 emission rates, the hourly average heat input in MMBtu, the exit velocity (or exhaust volume) and stack exhaust temperature; (2) verification that the planned Operating Parameters' SO_2 and PM_{10} emission rates utilized for Predictive Modeling in the preceding month were not exceeded, or if exceeded, documentation describing that exceedance; (3) the model input files and results of "follow-up" modeling for the preceding month (or portion thereof during which all Monitors were not in place), including for each unit the SO_2 emission rates, hourly average heat input

in MMBtu, the exit velocity (or exhaust volume) and stack exhaust temperature, as measured by in-stack monitors; (4) the meteorological data used for each day of Predictive Modeling and each day of follow-up modeling; and (5) for each day of the preceding month, a listing of each 3-hour period's maximum predicted SO_2 impact value and location for both predicted and follow-up modeling, and each daily period's maximum predicted 24-hour SO_2 and PM_{10} impact and location for predicted and follow-up modeling. All such reports shall be publicly available and Mirant waives any claims it might have that such reports contain confidential business information.

12. Commencing June 2, 2007, Mirant shall deliver in electronic format to the Department, EPA and the City of Alexandria on a weekly basis all data generated by the Monitors required by this Order, including for each unit five-minute and hourly SO_2 emissions, and the results of the TCLP sampling and analysis of post-trona flyash.

13. Within 15 days from the approval of this Consent Order, Mirant shall also deliver in electronic format to the Department, EPA and the City of Alexandria the following data: (1) 6-minute interval opacity data for each of the Facility's boilers for pre- and post-trona operations for the years 2003, 2004, 2005 and 2006 as measured by continuous opacity monitors; (2) hourly CO CEM data for each of the Facility's boilers for the years 2003, 2004, 2005 and 2006 as measured by in-stack monitors; (3) hourly operational data for each of the Facility's boilers for the years 2003, 2004, 2005 and 2006, including coal firing rate, trona injection rates, and stack exhaust temperature and MW output as measured by in-stack monitors; and (4) all data collected by SO_2 monitors which were stipulated within the ACO's Model Evaluation Study Protocol but not provided to date, including SO_2 ambient concentrations collected on Harbor Terrace, and all calibration printouts showing 5-minute SO_2 values used in forming hourly averages.

Operation During Line Outage Situations

14. From the effective date of this Order, during a Line Outage Situation, Mirant shall operate the Facility to produce the amount of power needed to meet the load demand in the Washington, D.C. area, as specified by PJM and in accordance with the DOE Order. During such operations, Mirant shall utilize pollution control equipment and measures to the maximum extent possible under the circumstances to limit the emissions of PM_{10}, $PM_{2.5}$, NOx, and SO_2 from each boiler, including operating only the number of units necessary to meet PJM's directive pursuant to the DOE Order or the number that satisfy the predictive modeling, and optimizing its use of Trona injection to minimize SO_2 emissions. Mirant, at a minimum, shall operate the facility in accordance with best air pollution control practices as identified in Appendix 2 to this Order. During a Line Outage Situation, Mirant shall achieve 0.55 lb/MMBtu SO_2 emissions on a rolling 24 hour average basis.

    a. If Mirant has 30 days notice in advance of a Line Outage Situation, it shall submit a plan based on the criteria above to the Department for approval 15 days before commencement of the Line Outage describing how Mirant intended to limit emissions during the Line Outage Situation. In the event that Mirant demonstrates in the plan that an emissions level of 0.55 lb/MMBtu is not logistically feasible because of factors such

as the quantity of available Trona and predicted duration of the outage, the plan shall describe how Mirant otherwise intended to optimize its use of Trona injection so as to maximize SO_2 reduction and it shall propose control measures and removal efficiencies to be achieved during the Line Outage Situation.

b. If Mirant has fewer than 30 days advance notice of the Line Outage Situation, Mirant shall submit the plan referred to in the subsection above to the Department for approval as promptly as reasonably possible under the circumstances but not later than five days from the notification date. The plan to be followed for an unscheduled Line Outage Situation will depend upon the specific circumstances at the time of the unscheduled Line Outage Situation.

15. Non-avoidable malfunctions of emission control devices, such as Trona injection, shall not be deemed a failure to limit the emissions during a Line Outage Situation, provided that Mirant has made all reasonable efforts under the circumstances to avoid the malfunction and to promptly correct the malfunction. All emissions during Non-Line and Line Outage Situations count toward any other permit, statutory, or regulatory limits for the Facility. If operation of the Facility during a Non-Line Outage causes or significantly contributes to a monitored or follow-up modeled exceedance of the NAAQS or the applicable State Air Toxic Pollution Standards, this Order shall not prevent the Department from issuing an appropriate order or otherwise taking appropriate action under DEQ regulations.

16. During Line Outage Situations, Predictive Modeling must continue to be performed but the Facility shall be operated under the Line Outage Situation provision in accordance with the DOE Order and this Order.

Annual NOx Emission Limit and PM_{10} Emission Rate Limit

17. The Facility shall not emit more than 3,700 tons of NOx per year.

18. The Facility shall not emit more than 1,019 tons of NOx from between May 1 through September 30 (the Ozone Season) of that same year.

19. The Facility shall limit the emission rate of PM_{10} for each unit to 0.055 lb/MMBtu.

Additional Particulate Matter and Fugitive Dust Control

20. As of the effective date of this Order, Mirant shall have implemented and be operating the particulate matter and fugitive control measures identified in Appendix 3 of this Order.

General Provisions

21. Mirant's actions shall be consistent with all provisions of federal and state law, including but not limited to, the Clean Air Act, all federal regulations promulgated under the Clean Air Act, and any other applicable laws, including the Virginia SIP.

22. Mirant shall cooperate with the Department in the development of non-varying permit emission limits protective of all NAAQS or applicable State Air Toxic Pollutant Standards. Mirant agrees to submit and provide to the Department on a timely basis all information requested by the Department for the development and issuance of any air permit.

23. Mirant agrees that the obligations of this Order, to the extent they have not been completed, may become obligations in an air permit issued to Mirant.

24. To the extent consistent with this Order, the terms of the September 23, 2004, Order by Consent between the Department and Mirant are incorporated herein by reference. Notwithstanding any requirements of this Order, Mirant remains obligated under the terms of the Order by Consent to eliminate and prevent any NAAQS exceedances caused by the Facility.

Section E: Administrative Provisions

1. This Order shall apply to and be binding upon Mirant, its agents, successors, and assigns and upon all persons, contractors and consultants acting under or for Mirant, or persons acting in concert with Mirant who have actual knowledge of this Order or any combination thereof with respect to matters addressed in this Order. No change in ownership or corporate or partnership status will in any way alter Mirant's responsibilities under this Order.

2. This Order addresses only those issues specifically identified herein. This Order shall not preclude the Board or the Director from taking any action authorized by law, including, but not limited to taking subsequent action to enforce the terms of this Order. This order shall not preclude appropriate enforcement actions by other federal, state or local regulatory agencies for matters not addressed herein.

3. Subject to the Force Majeure provisions in Section E.8, failure by Mirant to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or Director as a result of such violations. None of the provisions of this Order shall constitute a waiver from enforcement for any exceedance of the NAAQS for the duration of the Order.

4. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.

5. Mirant shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or other such circumstance. Mirant must show that such circumstances resulting in noncompliance were beyond its control and not due to a lack of good faith or diligence on its part. Mirant shall notify the Department in writing when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of this Order. Such notice shall set forth:

a. The reasons for the delay or noncompliance.

b. The projected duration of any such delay or noncompliance.

c. The measures taken and to be taken to prevent or minimize such delay or noncompliance.

d. The timetable by which such measures will be implemented and the date full compliance will be achieved.

6. Failure to so notify the Department in writing within 24 hours of learning of any condition above, which Mirant intends to assert will result in the impossibility of compliance, shall constitute a waiver of any claim of inability to comply with a requirement of this Order.

7. All notifications, plans, reports, or other information Mirant is required to submit to the Department pursuant to this Order shall be sent to:

Director, Northern Regional Office
Virginia Department of Environmental Quality
13901 Crown Court
Woodbridge, VA 22193

and

Director
Department of Transportation and Environmental Services
City of Alexandria
301 King Street
Alexandria, VA 22314

8. This Order shall become effective upon execution by both the Director of the Department of Environmental Quality or his designee and Mirant.

9. This Order shall continue in effect until the effective date of a permit issued to the Facility which contains limits that assure that emissions from the Facility do not result in modeled exceedances of the NAAQS or the applicable State Air Toxic Pollutant Standards for all pollutants, or September 30, 2007 whichever comes first. If the aforementioned permit has not been issued to the Facility by September 30, 2007, the operation of the Facility should be based on one of the operational scenarios as listed in Appendix 1 of this Order.

10. Termination of this Order, or of any obligation imposed in this Order, shall not operate to relieve Mirant from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

AND IT IS ORDERED this ____ day of _____, 2007.

By: _____
David K. Paylor, Director
Department of Environmental Quality

Mirant Potomac River, LLC, agrees to the issuance of this Order.

Mirant by: _____

The foregoing instrument was signed and acknowledged before me on this _____ day of _____ 2007 by _____ of Mirant Potomac River, LLC, in the City of _____, Commonwealth of Virginia.

_____
Notary Public

My Commission expires: _____

Appendix 1

Note: Mirant may request, subject to Department approval, additional complying scenarios to be added to the table at a later date.

Summary of Complying lb SO2/MMBtu Rates

			3-hr	24-hr
1a	3 & 4	Both Units @ 16 hrs max/ 8 hrs min	0.46	0.44
1b	3 & 4	Both Units @ 12 hrs max/ 12 hrs min	0.46	0.42
2a	3 & 5	Both Units @ 16 hrs max/ 8 hrs min	0.51	0.47
2b	3 & 5	Both units @ 12 hrs max/ 12 hrs min	0.49	0.45
3a	4 & 5	Both Units @ 16 hrs max/ 8 hrs min	0.50	0.45
3b	4 & 5	Both units @ 12 hrs max/ 12 hrs min	0.45	0.43
4a	1,2,3	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 3 @ 16 hrs max/ 8 hrs min	0.37	0.40
4b	1,2,3	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 3 @ 12 hrs max/ 12 hrs min	0.37	0.40
5a	1,2,4	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 4 @ 16 hrs max/ 8 hrs min	0.40	0.40
5b	1,2,4	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 4 @ 12 hrs max/ 12 hrs min	0.40	0.40
6a	1,2,5	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 5 @ 16 hrs max/ 8 hrs min	0.46	0.43
6b	1,2,5	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 5 @ 12 hrs max/ 12 hrs min	0.46	0.43
7a	3,4,5	All units @ 16 hrs max/ 8 hrs min	0.33	0.30
7b	3,4,5	All units @ 12 hrs max/ 12 hrs min	0.32	0.29
7c	3,4,5	All units @ 8 hrs max/ 16 hrs min	0.30	0.26

Assumes Background Concentrations

3hr: 238.4

Appendix 2

The following procedures will be implemented during Line Outage Situations to ensure the ability to reduce SO_2 emissions is optimized:

1. Maintain trona injection on each unit at the maximum flow possible – up to the limitations of the system: blower discharge pressure, feeder speed, etc.

2. Station additional operators on the hot precipitator ash systems to quickly resolve ash pluggage problems and manually ensure ash is flowing properly.

3. Schedule extra ash trucks to be on site during line outages to handle the expected increase in ash generated.

4. Schedule the ash storage site to extend its hours, allowing additional truck deliveries from Potomac River plant to be received.

5. Shift load from units with higher SO_2 to units with lower SO_2, to the extent possible, to reduce overall SO_2 emissions.

6. When unit loads ramp to follow demand, bring units with lowest SO_2 up first and down last to minimize overall SO_2 emissions.

Appendix 3

Fugitive Dust Control Projects

Note: Projects that make use of water sprays to control fugitive dust will not be operated during periods when daytime temperatures are below 32 degrees Fahrenheit, consistent with good operating practice, to avoid icing conditions that would be hazardous to employees and equipment.

1. Bottom Ash and Fly Ash Silo Vent Reducting

Ash from the Potomac River Plant's operations is transported pneumatically from the five units to three ash silos. Once in the silos, ash drops out and the transport air is vented out the top of the silos, through baghouse dust collectors. In this Project, Mirant shall install ductwork from the outlet of each ash silo vent and combine them into one duct. The new ductwork will be routed to the inlet of Unit #1 hot precipitator. Mirant estimates that this Project may reduce fugitive dust emissions at the Potomac River Plant by as many as 30 tons per year.

2. Coal Pile Wind Erosion and Dust Suppression

Mirant shall install a 12' high perimeter fence with windscreens on the windward and leeward sides of the coal storage pile to reduce wind erosion. The fencing shall be installed on top of existing concrete walls, which form the boundary of the coal pile. The fencing shall also be engineered to handle area wind loads, and be designed to avoid the effects of eddying and dust carryover. Mirant estimates that this Project may reduce fugitive dust emissions at the Potomac River Plant by as many as 2.8 tons per year.

3. Coal Stackout Conveyor Dust Suppression

Coal delivered to the Potomac River Plant is either transported from a railcar unloader to the plant via a series of conveyor belts, or conveyed to a storage pile outside the plant. Currently, a set of nozzles spray water at the end of the conveyor that drops coal onto the storage pile to suppress fugitive dust emissions. Once this Project is implemented, Mirant shall spray a chemical binding agent onto coal as it drops onto the belt. The binding agent shall be a non-hazardous chemical that agglomerates fine coal particles together prior to being dropped onto the pile, thereby preventing wind from causing the fine particles to escape. The binding agent shall remain effective for a month or more on the coal in the pile, even with rain or when coal is moved around the pile. Mirant estimates that this Project may reduce fugitive dust emissions at the Potomac River Plant by as many as 800 pounds per year.

4. Ash Loader Upgrade

Ash is transferred from storage silos to trucks by a gravity-feed system, in which ash-loading equipment regulates the flow of ash out of the silo above, then mixes it with water prior to dropping the dampened ash into a truck below. Fugitive ash dust emissions at this location are correlated to the extent to which the loader mixes water into the flowing ash. There are three ash silos, two of which have had modern ash loader equipment installed (in 1997 and 2001), and one that has the original equipment. Mirant shall replace the ash loading equipment on the third silo with the modern design which is much more effective at mixing water into the ash, further reducing fugitive dust emissions associated with this process. Mirant estimates that this Project may reduce fugitive dust emissions at the Potomac River Plant by as many as 200 pounds per year.

5. Ash Loading System Dust Suppression

In addition to the Ash Loader Upgrade Project described above, Mirant shall install a water fogging system at the transfer points between the ash loaders and trucks, for additional dust suppression. Mirant shall also install a system of water pumps, piping, nozzles, and a control system to form a "fog" around the ash loader discharge chute. The water droplets shall drop fugitive ash particles to the ground, drain into a collection sump, and be treated at the Plant's water treatment facility. Mirant estimates that this Project may reduce fugitive dust emissions at the Potomac River Plant by as many as 200 pounds per year.

6. Coal Railcar Unloading Dust Suppression

The railcar unloader is a device that empties individual railcars filled with coal onto conveyor belts, prior to the conveyance of the coal to the plant, by tipping the railcar upside down. To supplement the existing dust controls at this location, Mirant shall spray a dilute mixture of water and binding agent onto the coal at three locations during the unloading process. The three spray levels shall be activated in sequence as each railcar is tipped over. Mirant estimates that this Project may reduce fugitive dust emissions at the Potomac River Plant by as many as 200 pounds per year.

7. Truck Washing Facility

A truck washing facility shall be installed at the Potomac River Plant to wash the wheels, under-carriage, and sides of trucks used to haul fly ash and bottom ash to off-site ash storage facilities. The facility shall consist of a steel basin with ramps on either end, and an array of nozzles that spray high velocity jets of water on the bottom and sides of trucks as they are driven through the device. Water shall be recirculated through a filtration tank. Two pumps shall move water through the system, one to supply water to the spray nozzles, and one to draw water out of the basin and through the filtration tank.

Accumulated solids in the filtration tank shall be removed periodically, transported off site, and disposed of in accordance with all applicable local, state, and federal laws and regulations. Mirant estimates that this Project may reduce fugitive dust emissions at the Potomac River Plant by as many as 13.7 tons per year.