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MIRANT℠

December 30, 2005

Mr. Lawrence Mansueti
Permitting, Siting and Analysis Division
Office of Electricity Delivery and Energy Reliability
United States Department of Energy
Routing Symbol OE-20
1000 Independence Avenue, S.W.
Washington, D.C. 20585

RE: District of Columbia Public Service Commission,
Docket No. EO-05-01

Dear Mr. Mansueti:

Attached is the Operating Plan of Mirant Potomac River, LLC, which is being submitted in compliance with Order No. 202-05-03, issued by the Department of Energy on December 20, 2005, in the captioned proceeding.

Thank you for your attention to this matter.

Sincerely,

Lisa D. Johnson
President
Mirant Potomac River, LLC

Enclosure

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY

District of Columbia Public Service Commission	))	Docket No. EO-05-01

OPERATING PLAN OF MIRANT POTOMAC RIVER, LLC IN COMPLIANCE WITH ORDER NO. 202-05-03

Pursuant to Section 202(c) of the Federal Power Act, 16 USC § 824a(c), Section 301(b) of the Department of Energy Organization Act, 42 USC § 7151(b), and Order No. 202-05-3, issued by the Department of Energy ("DOE" or the "Department") on December 20, 2005 ("Order"), Mirant Potomac River, LLC ("Mirant") hereby submits the following Operating Plan, detailing the steps Mirant will take to ensure compliance with the Order.

I. Introduction

As Mirant advised DOE by letter dated September 7, 2005, Mirant anticipates a phased-in resumption of operations at the Potomac River Power Plant (the "Plant") beginning with a temporary phase during which operations are significantly reduced from full capacity but can be maintained at a level that does not create or significantly contribute to modeled NAAQS exceedances (the "Temporary Phase"). The first step of the Temporary Phase has been in effect since September 21, 2005, when Mirant resumed operation of unit 1 on an hours-constrained basis.

It has been Mirant's expectation since September 2005, that the Temporary Phase would be followed by an intermediate phase during which several of the units would be in operation (the "Intermediate Phase"). In compliance with the Order, Mirant proposes continuation and expansion of the Temporary Phase and immediate implementation of the Intermediate Phase plans, as described in this Operating Plan. The Intermediate Phase operating plan Mirant proposes to implement is referred to as "Option A." An alternative Intermediate Phase operating plan is also presented as "Option B." Under the Temporary Phase or either alternative Intermediate Phase, Mirant expects to be fully compensated by PJM for any costs incurred due to the operation of the facilities in accordance with the Order.

Mirant has provided alternative plans for the operation of units and the reduction of startup time of units in an effort to address the conflicting mandates of the Order: to "keep as many units in operation . . . and . . . take all other measures to reduce start-up time of units not in operation" while at the same time not "causing or significantly contributing to any exceedance of the NAAQS."

Order at Paragraph B. Under Option A, Mirant would operate 1 baseload unit and two cycling units and, in the event the entire plant is called into service, it would take approximately 28 hours to restore the entire plant's operations. Option A results in no modeled NAAQS exceedances. Under Option B, Mirant would operate three baseload units continuously, with 12 hours or less at maximum load and 12 hours or more at minimum load on a daily basis, and would operate each of the cycling units one day per week (on separate days) for approximately 8 hours. Option B maximizes the ability to follow load up to the capacity of the three baseload units, 306 MW, and when the system load is at or below this capacity, minimizes the risk of tripping off the Plant equipment in the event both 230 kV lines serving the load were to fail. Under Option B, if the entire plant were called into service, it would take approximately 12 hours to restore the entire plant's operations.

Option B offers dramatically better reliability than Option A, but results in a marginal computer-modeled exceedance of the 24-hour NAAQS for one pollutant (SO_2), although the 3-hour and annual NAAQS for SO_2 are met. Moreover, that exceedance was modeled to occur infrequently in the course of a year and only on the top floor balconies and the roof of the Marina Towers condominium adjacent to the Plant.

Mirant understands and acknowledges that the Department will decide which alternative best balances the need for electric reliability against the need for "modeled" NAAQS compliance during the Intermediate Phase while Mirant continues the engineering and other planning necessary to propose a long term solution. However, Mirant believes it is important to provide the Department with the alternative that provides improved reliability and to put the "modeled" NAAQS compliance issue in context to facilitate the anticipated consultation between the Department and EPA to determine the best feasible operating scenario.

Mirant continues to explore the most effective method of reconfiguring the stacks in some manner to increase buoyancy of emissions and mitigate against the downwash effect. Preliminary modeling indicates that reconfiguring the stacks creates the most favorable long term solution to the problem of downwash. Mirant anticipates that the time required for design and implementation would be in the order of 18 months from the date of this Operating Plan if approvals are obtained timely; therefore, the long term solutions to be implemented in the "Long Term Phase," though addressed generally, are not the focus of this Operating Plan.

In response to DEQ's letter of August 19, 2005, directing Mirant to take immediate action, Mirant reduced output from all five units at the Plant to their lowest feasible levels as of midnight on August 21, 2005, and on August 24, 2005 Mirant temporarily shut down the Plant. Since the shut-down of the Plant, Mirant has conducted, both internally and with the support of consultants, experts and advisors, analysis, testing, engineering, computer modeling and other ambient air impact studies to develop a plan to restore the Plant to full operations in a manner that does not create ambient air quality concerns. Such analysis,

testing, engineering, computer modeling and other ambient air impact studies will likely continue for many months. Accordingly, Mirant anticipates supplementing this response from time to time as further data from such testing, engineering, computer modeling and other studies become available and are analyzed to support phased in resumption of increased Plant operations.

Mirant requests that this Operating Plan serve as its plan and proposed schedule for compliance to the Commonwealth of Virginia Department of Environmental Quality ("DEQ") which DEQ requested be provided on or before December 31, 2005, and which Mirant understands would be, subject to review and approval by DEQ, incorporated into the Order by Consent Issued to Mirant on September 23, 2004 by DEQ.

II. Temporary Phase Operating Plan

After significant analysis of Plant operating configurations with existing control equipment, Mirant determined that unit 1 can operate on an hours-constrained basis without creating a modeled exceedance of the NAAQS in the vicinity of the Plant. Mirant proposed to DEQ operating unit 1 on a limited basis subject to the operating limitations of (1) a 24-hour SO2 tons-per-day emissions cap of 7.4 tons per calendar day, and (2) no generation between the hours of 10:00 pm and 5:00 am. On September 21, 2005, Mirant resumed operation of unit 1 in such configuration. The typical operating profile with the above limitations allows for up to 16 hours of generation per calendar day, with up to 8 hours at full capacity (88 MW) and 8 or more hours at minimum capacity (35 MW). During the period since September 21, with the concurrence of DEQ, Mirant has conducted testing of trona and a lower sulfur coal than that typically used at the Plant while maintaining the above operating limitations.

During the Temporary Phase, while operating unit 1 subject to the limitations set forth above, Mirant has tested a promising boiler SO2 control technology, trona injection. Trona is a naturally occurring substance, chemically similar to baking soda, whose injection has resulted in substantial reduction of SO2 emissions in other contexts. Mirant also tested the use of a type of Colombian coal which has a sulfur content of less than 1.0# SO2/mmbtu (as compared to the Appalachian coal generally used at the Plant which has a sulfur content that averages 1.2 # SO2/mmbtu). The testing was conducted at a range of operating profiles, from minimum load to full load, and using various rates of Trona injection and various blends of Colombian and Appalachian coal. Mirant reported to DEQ on December 7, 2005 that the testing indicates that Trona injection can be used to achieve a reduction of SO2 emissions continuously and on a sustainable basis of 60% - 70%. Subsequent testing has confirmed reductions at these and higher levels. We believe that using a blend of Colombian coal with the Appalachian coal can achieve further SO2 reductions. Mirant understands that the Department has received copies of Mirant's various correspondence with DEQ related to the Plant since the shut-down and will provide copies of such correspondence to the extent the Department requests.

By letters to DEQ dated December 7 and 9, 2005, Mirant proposed to operate unit 1 using trona injection or lower sulfur coal to manage SO2 emissions, subject to the SO2 emission cap of 7.4 tons per calendar day and a rolling 24-hour rate limit of 0.89 lb/mmBtu but unconstrained as to unit load and hours of operation. Mirant supported this request with modeling which demonstrates that unit 1 operating in the above mode results in ambient air concentrations that are better than the National Ambient Air Quality Standards for SO2, PM10, and NO2. DEQ indicated that it will respond to this request after receipt of PM test results using EPA methods 201A and 202. Mirant expects to receive such test results shortly.

Mirant requests that the Department immediately allow expanded operation of unit 1 so that Mirant can operate unit 1 unconstrained as to unit load and hours of operation but subject to the SO2 emission cap of 7.4 tons per calendar day and a rolling 24-hour rate limit of 0.89 lb/mmBtu. There are cold weather impacts related to the hours-constrained operation of unit 1 that should be addressed promptly to support the contribution the unit is now able to make to the electric system reliability. The plant uses steam extracted from the turbines for building heating. Under the current cold weather conditions, equipment in the plant is in danger of freezing during the eight hour period each night when the entire station is shutdown, especially the four units which have not run since August. Sustained temperatures below freezing can cause damage to the equipment as well as extend the start-up times for both daily resumption of power at unit 1 and extraordinary resumption of power during an emergency. Allowing Mirant to operate unit 1 without constraints on hours of operation (but with SO2 emission constraints) will allow Mirant to keep unit 1 and the plant warm.

III. Intermediate Phase Operating Plan

Option A: Mirant proposes to operate the two cycling units (units 1 and 2) up to 16 hours per day each (with up to 8 hrs at full load and 8 hrs or more at minimum load) while also operating one of the three base load units continuously without constraints as to load or operating hours. During such operations, Mirant would use trona injection and a blend of the Appalachian coal generally used at the Plant and lower sulfur coal to manage SO_2 emissions. In this configuration, Mirant would rotate operation of the three base load units in intervals of approximately two weeks so that one baseload unit is operating at a time and none of the three baseload units would remain or be placed in lay-up mode. As discussed below, bringing the units out of lay-up mode reduces the restoration time in the event of an emergency.

In the above operating configuration, the Plant can follow load up to a maximum of approximately 278 MW for 8 hours a day. If both 230 kV lines serving Washington DC were to fail and, as a result, the Plant tripped off-line (a likely occurrence if the Plant is not following closely the actual regional system demand), it would require approximately 28 hours to restore the entire plant from this operating configuration.

Option B: Mirant believes that the most effective way of balancing the competing demands of electric system reliability, environmental stewardship and good engineering practice is Option B. Under Option B Mirant would operate the 3 base load units continuously with up to 12 hours per day at full load and 12 hours or more at minimum load, using trona injection and a lower sulfur coal blend to manage SO_2 emissions. Under Option B Mirant would also operate the two cycling units 1 day per week each on an hours constrained basis (8 hours total per unit, with 4 hours at maximum load and 4 hours at minimum load) to keep such units out of lay-up mode. Option B allows for load following up to a maximum of approximately 306 MW for 12 hours a day and up to a maximum of approximately 394 MW for 4 hour periods twice a week. Option B reduces the risk of the Plant tripping off line in the event both 230 kV lines serving the load were to fail when system load is at or below the Plant operations at the time of the failure, and requires approximately 12 hours to restore the entire plant in such an event. As described in Section X below, Mirant believes that Option B does not significantly contribute to an actual NAAQS exceedance and results in only a marginal modeled NAAQS exceedance.

Modeling and Assumptions: Mirant submits with this plan the modeling listed on Exhibit A which demonstrates no modeled exceedances in the case of Option A and marginal computer-modeled exceedances of the 24-hour NAAQS for one pollutant (SO_2), although the 3-hour and annual NAAQS for SO_2 are met, in Option B. Also included, as Exhibit B, are isopleths for the Option B case, showing the extremely limited geographic scope and frequency of modeled exceedances. With concurrence from DEQ, Mirant has made the following deviations from the approved modeling protocol: (1) the PM, NOx and SO2 inputs were changed from the applicable permit limit to the actual, historical Plant emissions; (2) the Plant's actual capacity factor was applied to the annual standards as opposed to a 100% capacity factor; and (3) a modest refinement of the 24 hour SO2 background concentration was made in accordance with the memorandum from ENSR attached as Exhibit C to address temporal discrepancies between modeled results and the DEQ SO2 monitor nearest the Plant.

IV. Schedule of Implementation

Currently, unit 1 is equipped with a rented trona injection system with hoses that can be moved to all 5 units. units 2, 3 and 4 are now equipped for such hoses and can be operated using trona to manage SO2 emissions. Switching hose connections from the one rental trona injection system to various units can be accomplished in a day but the unit from which the hoses are disconnected and the unit to which they are connected must be off-line during the process. Mirant expects unit 5 to be equipped to receive trona injection hoses in mid-January, 2006. A second rental trona injection system is expected on site on or around January 11, 2006 and fully operational by January 16, 2006. Additional rental trona systems are not available at this time.

The rental systems are not considered compatible for reliable continuous operations, thus Mirant has initiated design and purchase of materials for two trona systems which have been engineered to improve upon the rental systems' design. Additionally, Mirant is currently finalizing the purchase for the remaining three trona injection systems. All five of these systems will require on-site assembly. Mirant is in the process of completing detailed design and scheduling for these five trona systems and at this time only has estimates for the completion dates of these systems. Mirant is focused on getting the first of these systems ready for service by February 20, 2006 to complement the two rental systems. The remaining systems are forecast to be complete no later than March 20, 2006. As the engineered systems are assembled the rental systems will be phased out. While Mirant is doing everything to expedite a fast track process of design, procurement, delivery, and assembly, the schedule is subject to change. Mirant will provide updates to the extent requested and as information becomes available.

The operations calendar attached as Exhibit D sets forth the calendar for implementation of Option A assuming a commencement date of January 2, 2006. As the calendar demonstrates, three unit operations would begin in approximately 7 weeks. The implementation schedule for Option B would be very similar in timeframe.

V. Emergency Preparedness

The calendar attached as Exhibit D also sets forth Mirant's plan for bringing units 2,3,4 and 5 out of lay-up and into operational readiness. This calendar assumes commencement of this Operating Plan on January 2, 2006 and provides for an orderly and staged resumption of operation on individual units, allowing one week's time per unit to address start up needs and potential issues related to the units' 4 month lay-up period. Given notice commensurate with this orderly start-up calendar, all five units would be available and in a state of operational readiness by January 24, 2006. However, as of December 29, 2005, Mirant has received Pepco's notice to the Department of intended maintenance outages for the two 230kV lines scheduled for January 9, 2006 and January 23, 2006 respectively. Mirant has begun the process of removing units from wet lay-up, and will accelerate the unit start up sequence upon the required notice from PJM in accordance with the Order. This proposed line outage schedule will cause Mirant to compress the orderly and staged resumption of operation on multiple units. In Mirant's letter to DOE dated September 7, 2005, Mirant described the issues related to starting the units from lay-up mode; the issues are now more complex given the impact of cold weather and the extended period of lay-up. If operational issues with the units resulting from the long-term lay-up period are encountered, the availability of any unit for the proposed January 9, 2006 line outage may be impacted, and Mirant would immediately notify PJM and the Department. Mirant proposes as an alternative for consideration delaying briefly the scheduled outage until January 24 or 25 to allow for the orderly and staged resumption of operation on multiple units.

After bringing the units out of lay-up, if the units then in operation were to trip off line as a result of both 230 kV lines failing or if the entire Plant were called into service for some other reason, Mirant would need approximately 28 hours to restore the entire plant to operation under Option A and 12 hours to restore the entire plant to operation under Option B.

In any emergency situation, whether before or after bringing the units out of lay-up, Mirant will follow good engineering practice with respect to the Plant and will not operate the Plant in any manner that might create unsafe conditions for Plant personnel, damage the Plant or any of its equipment or that is not in compliance with good engineering practice. Moreover, in any emergency situation, Mirant may not have sufficient logistical support to operate all 5 units with trona injection (trona product on site, waste product removal infrastructure, etc).

VI. Managing SO_2 Emissions (for each phase)

During the Temporary Phase and Intermediate Phase, when a single unit is in operation, Mirant will operate such unit subject to a unit-specific 24 hr daily SO2 emission rate cap. Mirant will provide the unit specific caps to the Department in a supplement to this Operating Plan together with modeling to support such caps. Such modeling is underway but had not been completed by ENSR as of the submission of this Operating Plan. Compliance with such rate caps will result in modeled compliance with the SO2 NAAQS and will allow Mirant to maintain the necessary flexibility to operate each unit consistent with normal operating practices.

SO2 emissions under Option A of the Intermediate Phase of this Operating Plan will be managed by adhering to a plant-wide daily SO2 emission rate cap of 0.24 lb SO2/mmbtu and hours-constrained operation of cycling units 1 & 2. As attached modeling results show, any single base load unit (3, 4, or 5) can run unconstrained in this configuration, while units 1 & 2 can run between 8 and 16 hours per day, depending on which base load unit is running. The three-hour and annual SO2 NAAQS require a less stringent cap than the 24 hr standard, therefore the daily (24 hr) limit is used to ensure modeled NAAQS compliance.

Under Option B, SO2 emissions would be managed by adhering to a plant-wide daily SO2 emission rate cap of 0.22 LB SO2/mmbtu and load constraints of no more than 12 hrs of maximum load (306MW) operation and 12 hrs or more of minimum load (105MW) operation.

The above SO2 emission rate caps should apply only during the Temporary Phase and Intermediate Phase of the Operating Plan because, as described in Section IX below, implementation of the Long Term Phase operating plan through some form of stack reconfiguration mitigates the downwash effect thus requiring less SO2 reduction.

VII. Workforce Issues; Costs and Expenses

In response to DEQ's directive, Mirant temporarily shut down the Plant on August 24, 2005. Since that date, there have been no workforce reductions at the Plant. Mirant currently has no planned workforce reductions with respect to the Plant. The Plant workforce remains very dedicated to full resumption of Plant operations. Trained, experienced personnel are available to work 24 hours a day, 7 days a week, including overtime as needed, to implement this Operating Plan, respond in the event of an emergency and implement the Long Term Phase operating plan to restore the Plant to full operation.

Mirant has and will continue to engage numerous resources external to the Company as needed to support the analysis, testing and implementation of this Operating Plan as well as full restoration of Plant operations. In accordance with the Order, however, Mirant will work with PJM to mutually agree to a cost recovery mechanism to enable Mirant to recover costs associated with its compliance with the Order. This Operating Plan is dependent upon Mirant being fully reimbursed for any costs or expenses (including fixed cost recovery) for operations of the Plant in accordance with the Order. Similarly, Mirant will have to reach agreement with PJM for any cost recovery associated with Mirant's full compliance with Ordering Paragraph A of the Order in the event one or both of the 230kV lines is out of service. Mirant requests DOE assistance in reaching agreement with PJM on these matters.

VIII. Operating Materials & Supplies

Because of constraints related to supply logistics and rail delivery, and notwithstanding significant efforts, Mirant's current trona procurement strategy and schedule will only support a three unit operation using trona injection during the Intermediate Phase. Mirant will continue to develop an expanded trona strategy to support 4 or 5 unit operations using trona, as feasible. Mirant has procured a sufficiently large supply of Colombian coal to support using a 33% blend for at least 3 months of operation under Option A and 2 months of operation under Option B. Additional lower sulfur coal can be purchased and delivered within a month.

IX. Summary of Long Term Phase Operating Plan

Mirant continues to explore the most effective method of reconfiguring the stacks in some manner to increase buoyancy of emissions and mitigate against the downwash effect, particularly with respect to the adjacent high-rise condominium. Toward that end, Mirant has submitted information to the Federal Aviation Administration ("FAA") relating to a potential increase in stack height. The FAA review process is still underway. Preliminary modeling indicates that reconfiguring the stacks creates the most favorable Long Term Phase solution to the problem of downwash and would allow for reductions in the amount of trona needed in operations, thus mitigating against force majeure curtailment of operations due to trona procurement or rail delivery issues. Mirant anticipates

that the time required for design and implementation would be in the order of 18 months as long as approvals are obtained timely.

Mirant believes that notwithstanding transmission upgrades currently planned, there will always be an important role for the Plant given that it is approximately 5 miles from load served in downtown Washington, D.C. and less than a mile from the load served in Blue Plains (including the water treatment facility). All other generating sources serving such loads, by comparison, are approximately 30 or more miles away from the load served and are fully dependent on the transmission and distribution infrastructure to deliver needed electricity. Mirant is committed to working with the Department and all applicable agencies to reach agreement for the full restoration of operation of the Plant.

X. Comment on Modeling and Options A and B

Mirant has not violated any emission limits applicable to the Plant. Rather, the concerns addressed by the DEQ Administrative Order by Consent relate to the impact those emissions are predicted to have on the "ambient air" in the vicinity of the Plant. States are required by Section 110 of the Clean Air Act (the "CAA") to develop a "plan" which provides for "implementation, maintenance, and enforcement" of the NAAQS in their states. 42 U.S.C. § 7410(a)(1). Specifically, the plan must "include enforceable emission limitations and other control measures, means, or techniques . . as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter." 42 U.S.C. § 7410(a)(2)(A). Although new and modified air emission sources are required to "demonstrate . . . that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of any . . . (b) national ambient air quality standard," the Plant is not a new or modified source. 42 U.S.C. § 7475(a)(3). On the contrary, it has been operating since 1949. Although Mirant intends to move expeditiously to make the changes necessary to achieve a permanent solution that does not cause or contribute to a modeled NAAQS exceedance, the CAA expressly allows for that transition to occur using a "schedule and timetable for compliance." Virginia has used such a schedule for compliance in at least one previous situation, *Cate v. Transcontinental Gas Pipe Line Corp.*, 904 F. Supp. 526 (W.D.Va. 1995)..

A "schedule and timetable for compliance" is particularly appropriate given that the computer model used by agencies as a tool is just that—a computer's prediction of the impact on the ambient air of the plant's emissions. Because of very conservative assumptions used in the computer models, the models frequently predict an exceedance of the NAAQS where there is no *actual* exceedance. Mirant has done a brief comparison of model-predicted exceedances to actual monitored values (discussed below) that demonstrates the model's tendency to overpredict. In addition, the CAA requires that when EPA establishes the NAAQS, it must select a standard that has a built-in "margin of safety." 42 U.S.C. § 7409(b)(1). Thus, the standards are actually set at levels stricter than the levels at which the scientific evidence demonstrates adverse

health effects. Even without the added margin of safety, the identified health effects levels are based on protection of the most vulnerable members of the public during periods of strenuous exercise, rather than to an average person. These observations are discussed in more detail below.

Computer-Modeled Exceedances Versus Actual Exceedances of Ambient Air Quality Standards

The computer model that has been applied to ambient air quality in the vicinity of the Plant requires that Mirant add its own projected emissions impacts to the "background" pollutant concentrations in the ambient air. The background concentration is determined based on measured concentrations at nearby agency-run monitors observed over the last three years. Of course, this "monitored" data already includes the effect of emissions from the Potomac River Plant on the ambient air quality. By adding the Potomac River Plant's projected ambient air impacts to measured background, the modeling protocol "double counts" the impact of the Potomac River Plant.

The computer model's tendency to overpredict impacts is demonstrated in a study conducted by ENSR, comparing computer-modeled 24-hour SO_2 concentrations at the location where the SO_2 monitor is located (517 North St. Asaph St. in Alexandria) to the 24-hour SO_2 concentrations *actually measured* by the VDEQ SO_2 monitor at that location. Exhibit E attached. The computer model identified the 14 days with the highest predicted SO_2 impacts at that location over a period from March 2002 to November 2004. Comparing the model-predicted concentrations to the actual measured 24-hour concentrations on those 14 days, demonstrates that the computer model predicted concentrations were, on average, 5.84 times higher than what was actually measured. In no case did the computer model accurately predict or underpredict concentrations of SO_2.

Mirant, with consultation from VADEQ, plans to test the computer model in the unique circumstances of the Plant with a high-rise condominium (with balconies) on the adjoining property by engaging an appropriate expert to construct a physical, rather than computer, model that will analyze the ambient air quality impacts in a laboratory wind tunnel, after replicating the physical layout of the plant and surrounding area. Although the results of this effort will not be available in the time frame provided for submitting this Operating Plan, Mirant will keep the Department apprised of its progress with this physical model. In the meantime, however, as the Department evaluates which alternative Mirant should be ordered to follow, the existing computer model's over-prediction of ambient impacts is important to note.

Protection of Public Health

The NAAQS are designed to protect the public health with an "adequate margin of safety." 42 U.S.C. § 7409(b); 40 CFR § 50.2(b). Even before adding the "margin of safety," EPA develops the standards to protect populations that

may be particularly sensitive to air pollution.[1] Indeed, it has been noted regarding the "public" that "especially sensitive persons such as asthmatics and emphysematics are included within the group that must be protected" under 42 U.S.C. § 7409(b). *See*, *Lead Indus. Ass'n, Inc. v. Environmental Protection Agency*, 647 F.2d 1130, 1152 (D.C. Cir. 1980). After the level that will protect these especially sensitive persons is established, a "margin of safety" is then added to arrive at the final standard.

As an example of the margin of safety, for the SO_2 NAAQS, the standard was set at 365 µg/m3 although health effects were observed above 500 µg/m3. Specifically, the EPA criteria documents evaluating the 24-hour SO_2 NAAQS found that "the upper bound for the range of interest for 24-hour SO_2 standards remains at 500µg/m3 where effects appear to be likely." *Review of the National Ambient Air Quality Standards for Sulfur Oxides: Updated Assessment of Scientific and Technical Information—Addendum to the 1982 OAQPS Staff Paper*, December 1986, p. 48. With the inclusion of the margin of safety, the more stringent 365µg/m3 (or 0.14 ppm) 24-hour standard has repeatedly been retained by EPA. Additionally, it has been found that "[h]ealthy non-asthmatic individuals are essentially unaffected by acute exposures to SO_2 at concentrations below 2 ppm."[2] *Review of the National Ambient Air Quality Standards for Sulfur Oxides: Assessment of Scientific and Technical Information—Supplement to the 1986 OAQPS Staff Paper Memorandum*, September 1994, at p. 10. This is a level 14 times higher than the 24-hour primary SO_2 standard.

The modeled NAAQS exceedances associated with Option B are highly localized. As seen in the isopleth attached as Exhibit B, the Plant's emissions would have resulted in modeled exceedances of the 24-hour SO2 standard on only one corner of the highest balconies and the roof of the Marina Towers condominium adjacent to the Plant. Of the 5 years evaluated in the modeling identified as item 6 on Exhibit A, this isopleth represents the highest impact year. There are no modeled exceedances of the 3-hr or Annual SO2 standards. Moreover, those exceedances are all less than 500 µg/m3, the anticipated health effects level. As discussed above, the criteria documents indicate that the most significant risks contemplated are those faced by sensitive individuals who are exposed to SO_2 concentrations above 500 µg/m3 *while exercising*. Because even the conservative model predicts concentrations below the health effects levels and those effects are modeled to occur only on highest level outdoor

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[1] Specifically, in the case of SO_2, it has been determined that mild and moderate asthmatic children, adolescents, and adults that are physically active outdoors represent the population segments at most risk for acute SO_2 induced respiratory affects. Individuals with more severe asthmatic conditions have poor exercise tolerance and, therefore, are less likely to engage in sufficiently intense outdoor activity to achieve the requisite breathing rates for notable SO_2-induced respiratory effects to occur.
Review of the National Ambient Air Quality Standards for Sulfur Oxides: Assessment of Scientific and Technical Information—Supplement to the 1986 OAQPS Staff Paper Memorandum, September 1994, at p. 10.

[2] Air quality "criteria" documents do not constitute standards or guidelines, but rather refer to a document prepared by EPA which provides the scientific basis for promulgation of air quality standards for a pollutant.

balconies and rooftop, one could argue that the modeled NAAQS exceedances from Option B are not as great as the health risks posed by the longer period of time necessary to restore power in the event of a black-out.

State Process for Achieving the NAAQS

The Order stated that a "feasible" plan would be one, among other criteria, not "causing or significantly contributing to any exceedance of the NAAQS." Order, at Paragraph B. As previously noted, the CAA's statutory prohibition on emissions that would "cause or contribute" to exceedances of the NAAQS is a precondition to permitting a *new or modified source*. *See, e.g.*, 42 U.S.C. § 7475(a). The Plant is neither. The CAA does *not* state that an existing source *cannot operate* when a NAAQS modeled exceedance is discovered. As to an existing source's contribution to a NAAQS exceedance, Virginia's obligation would be to address this problem by using its EPA-approved State Implementation Plan ("SIP"), which—consistent with Section 110 of the CAA—allows Virginia to change the plant's permit limits and/or enter into a schedule of compliance with enforceable milestones while a permanent remedy is developed. *See, generally,* Virginia Administrative Code 9-80-1000 *et seq.*

Mirant and VDEQ are currently engaged in a process, pursuant to an administrative "Order by Consent," to develop a long-term approach to resolve the ambient air quality issues in the vicinity of the Potomac River facility. This approach will be incorporated into the consent order or into another enforcement document for the facility.

Conclusion

Both Option A and Option B proposed for the Intermediate Phase Operating Plan would, as required by the Order, significantly improve electrical reliability as compared to the status quo. Option B provides for significantly better electrical reliability than Option A, though it may cause certain modeled exceedances of ambient air quality standards. Nevertheless, Mirant believes that, for the above reasons, Option B is consistent with the Order and feasible as the term was defined in the Order.

We look forward to discussing this Operating Plan with you at your earliest convenience.

Respectfully submitted,

Lisa D. Johnson
President
Mirant Potomac River, LLC
1400 North Royal Street
Alexandria, VA 22314

Dated: December 30, 2005

Exhibits

Exhibit A: List of Modeling Included with Operating Plan

Exhibit B: Isopleth supporting Option B

Exhibit C: ENSR Memo regarding SO2 Background Concentrations

Exhibit D: Calendar showing Implementation of Intermediate Phase and Schedule for Bringing Units out of Lay-Up

Exhibit E: Comparison of Modeled Impacts vs. Monitored Impacts at DEQ SO_2 monitor at 517 North St. Asaph St. in Alexandria

EXHIBIT A
Modeling Included with Operating Plan

1. Update #1 to "A Dispersion Modeling Analysis of Downwash from Mirant's Potomac River Power Plant," Unit 1 hours constrained operation

2. Update #2, "A Dispersion Modeling Analysis of Downwash from Mirant's Potomac River Power Plant - Modeling Unit 1 Emissions at Maximum and Minimum Loads," Unit 1 unconstrained as to Hours of Operation – with SO2 limits

3. Update #3, "A Dispersion Modeling Analysis of Downwash from Mirant's Potomac River Power Plant – Modeling Units 1 and 4 Together," Unit 1 at 16 hours per day and Unit 4 unconstrained as to hours of operation – with SO2 limits

4. Update #4, "A Dispersion Modeling Analysis of Downwash from Mirant's Potomac River Power Plant – Modeling Unit 4 Emissions at Maximum and Minimum Loads," Unit 4, unconstrained as to hours of operation – with SO2 limits

5. Update #5,

   a. Unit 3 Unconstrained as to hours with SO2 limits, and Units 1 and 2 with hours and SO2 limits
   b. Unit 4 Unconstrained as to hours with SO2 limits, and Units 1 and 2 with hours and SO2 limits
   c. Unit 5 Unconstrained as to hours with SO2 limits, and Units 1 and 2 with hours and SO2 limits

   NOTE: At the time of this submittal, only the SO2 results for these cases have been completed. Tables are attached. The NO2 and PM10 results and an associated report are anticipated to be completed during the week of January 2, 2006.

6. Update #6, Units 3, 4, and 5 12 hours max per day and 12 hours min with SO2 limits, and Units 1 and 2 cycling on 1 day per week each, together with isopleths showing geographic scope and frequency of exceedances

   NOTE: As with Update #5, this modeling work is not complete at this time. This modeling and an associated report are anticipated to be completed during the week of January 9, 2006. The SO2 result is complete however, and is graphically presented as an isopleth in Exhibit B.