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BY TELECOPY

Lawrence Mansueti
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Office of Electricity Delivery and Energy Reliability
U.S. Department of Energy
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September 7, 2005

Mirant Potomac River: DOE Case OE-05-01

Dear Mr. Mansueti:

You requested that Mirant Potomac River, LLC ("Mirant") set forth in writing the information regarding the Potomac River power plant that Mirant shared with DOE, Pepco and PJM at the meeting called by DOE on September 1, 2005. This letter responds to your request.

The Consent Order:

Mirant entered into a Consent Order dated September 23, 2004 (the "Consent Order"), with the Virginia Department of Environmental Quality ("DEQ") under which Mirant agreed to perform certain computer modeling of emissions from the Potomac River power plant (the "Plant") in accordance with an approved protocol. The Consent Order required Mirant to submit the modeling results within 60 days after approval of the protocol for the study. By letter dated June 17, 2005, DEQ advised Mirant of its approval of the protocol and, on August 19, 2005, Mirant submitted the results in a report titled Downwash Modeling - Mirant Potomac River, LLC (the "Modeling"). The Consent Order provides that if the Modeling indicates that there are exceedances of the national ambient air quality standards ("NAAQS") for sulfur dioxide ("SO2"), nitrogen dioxide

("NO2"), carbon monoxide ("CO") or PM10, or exceedances of the Standards of Performance for Toxic Pollutants for mercury in the area immediately surrounding the Plant, DEQ shall require Mirant to submit to DEQ within 90 days of submitting the Modeling a plan and schedule to eliminate and prevent such exceedances on a timely basis.

The Modeling identified modeled exceedances of the NAAQS for SO2, NOx and PM10 in the vicinity of the Plant. By letter dated August 19, 2005, the DEQ advised Mirant of DEQ's injunctive powers under the Virginia Air Pollution Control Regulations (at 9 VAC 5-20-180(I)) and requested that Mirant immediately undertake such action as is necessary to ensure protection of human health and the environment in the area surrounding the Plant, including the potential reduction of levels of operation, or potential shut down of the Plant. The DEQ letter of August 19, 2005 directed that no later than August 24, 2005, Mirant advise DEQ of actions being taken by Mirant and their progress towards eliminating NAAQS violations.

As you are aware, Mirant reduced output of all five units at the Plant to their lowest feasible levels effective as of midnight August 21, 2005. By letter dated August 24, 2005, Mirant advised DEQ that Mirant had not identified a temporary operating proposal that achieved NAAQS compliance on a modeled basis, and that, therefore, Mirant's immediate short-term action plan was to shut down all five units at the Plant no later than midnight, August 24, 2005. In its August 24, 2005, letter Mirant committed to diligently continue further investigation and modeling of operational alternatives and their air quality implications.

Plan for Addressing Air Quality Concerns:

Mirant anticipates proposing to DEQ a phased-in resumption of operations at 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 contribute to significant modeled NAAQS exceedances. During this temporary phase, Mirant would expect to operate at least one unit at the Plant continuously, and others occasionally to test technological modifications to the Plant intended to resolve the issues identified by the Modeling.

Mirant is currently exploring a number of intermediate range options that, if feasible, can be implemented in a relatively short period of time and some combination of which Mirant expects to propose implementing. None of these options alone appears sufficient to eliminate modeled NAAQS exceedances and thus, Mirant is exploring whether several of these options may be combined in a manner that achieves favorable results. The options under consideration include boiler SO_2 control technology, equipment and operational modifications and changes to fuel specifications.

Mirant is also analyzing reconfiguring the existing stacks (increasing stack height or combining stacks). The initial review of this option is favorable, although engineering, technical and practical considerations have not been fully determined. If this option is

favorable, the time required for design and construction has not been determined but is expected to be greater than one year.

Potomac River Plant Unit Operations:

The Plant consists of five operating units, that are capable of running independently of each other. Units 1&2 are cycling units that range in output from a minimum of 35 MW to a maximum of 88 MW each. Units 3, 4, & 5 are baseloaded units that range between 35MW and 102 MW each. All units ramp up or down in load at a rate of approximately 3 MW/minute. As to units that are in operation, the heat transfer surfaces inside the boiler must be cleaned on a daily basis. This cleaning is accomplished by inserting lances into the boiler that blow steam across the heat transfer surfaces, or "blowing soot." Sootblowing can only be done at nearly full output, when steam extracted from the boiler cycle is at sufficient pressure to clean the surfaces. If a unit is run at minimum output, it must still be brought to full output for sootblowing. The process of raising output, blowing soot, and lowering output takes 2-3 hrs. Additional unit characteristic information is set forth below.

Potomac River Plant Cold Startup Times:

The normal startup time supplied to PJM for cold startup for the units at the Plant are:

- *Unit 1 ... 16 hrs (7 hrs notification + 9 hrs startup)*
- *Unit 2 .... 16 hrs (7 hrs notification + 9 hrs startup)*
- *Unit 3 ..... 83 hrs (72 hrs notification + 11 hrs startup)*
- *Unit 4 ..... 83 hrs (72 hrs notification + 11 hrs startup)*
- *Unit 5 ..... 80 hrs (72 hrs notification + 8 hrs startup)*

Please note that the notification and start up times set forth above are currently on record with PJM for normal dispatch\operations. In an emergency return to service scenario, the total start up times may be capable of being shortened. Units 1&2 are cycling units and can start up more quickly and frequently than units 3,4 and 5 which are base load units that can not be called into and out of service frequently. The start up times may increase if additional, unforeseen startup issues arise due to a prolonged shutdown of the Station. In addition there are limitations on the number of units that can be started simultaneously at the station.

The Startup times set forth above represent the time required to heat the turbine and shell metal uniformly to match steam temperatures so that there is no damage to the turbine. Actual turbine metal and steam temperatures will dictate actual startup times. The notification times set forth above are normal dispatch notification times currently used by Mirant and PJM for normal dispatch of the Plant's base load and cycling units. For emergency operation these times can be shortened.

Potomac River Plant "Layup":

Below is a summary of the minimum layup requirements for the units at the Plant, as discussed in the September 01, 2005 meeting. These procedures will be put in place if boilers will be out of service for an indefinite period of time. The purpose of these layup procedures is to prevent rusting and corrosion of boiler and feedwater cycle surfaces. Mirant is within 2 weeks of implementing a layup on all units at the Plant.

Boilers 1, 2, 3, 4 and 5 Superheaters
The superheaters will be backfilled with water containing hydrazine and ammonia (to obtain a pH of 10 or higher).

Boilers 1 and 2 (Natural Circulation Units)
After backfilling the superheaters with the layup solution, a hydrazine solution will be pumped into the boiler through the boiler chemical feed connection. A nitrogen line will be connected to the chemical feed line and nitrogen will be bubbled into the lower drum. The vents will be closed on one upper drum and nitrogen will be bubbled through the chemical feed line and out the vents on the other upper drum. The initial nitrogen bubbling will help displace some of the air and mix up the passivation chemicals. All of the drum vents will be shut and a pressure of 1 psig of nitrogen will be kept on the drum during the layup period. The subsequent nitrogen cap will be maintained to keep air out.

Boilers 3, 4 and 5 (Forced Circulation Units)
After backfilling the superheaters with layup solution, hydrazine will be pumped to the steam drum with the boiler circulating pumps on. This will distribute the hydrazine. Once it is distributed (probably 30 minutes), the pumps will be shut down. A nitrogen purge of the drum will be performed and then the drum vents will be closed. A nitrogen cap of 1 psig pressure will be maintained on the drum.

Hotwells
The hotwells will be drained and air dried.

Condenser Waterboxes
These will be drained and dried.

Heater Shells
A Nitrogen flow to the shell-side of feedwater heaters will be put in place.

Deaerator (heater/storage)
The deaerator will be drained and dried.

Important to Note

All of the boilers treated with layup solution **must** be completely drained and rinsed before being returned to service.

- The draining and two rinse cycles will add 10 hours additional to the normal cold startup time **per unit** (a rinse cycle takes 5 hour per cycle)
- Because of the design capacity of the No. 2 Fuel Oil system used for startup the station is limited to two units starting concurrently
- In general, the longer the units are off line the more delays can be expected in the units return to service

Please call me if you would like additional information about the Plant in connection with DOE Case OE-05-01.

Sincerely,

Hula C. Edmonds

Hula C. Edmonds
Director of Operations, Potomac River

Enclosures:

1. Consent Order
2. DEQ 6/17/05 letter approving protocol
3. DEQ 8/19/05 letter directing immediate action
4. Mirant 8/24/05 letter regarding temporary shutdown