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May 24, 2006

The Honorable Samuel W. Bodman Secretary of Energy United States Department of Energy 1000 Independence Avenue, S.W. Washington, DC 20585

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

Dear Secretary Bodman:

On behalf of the City of Alexandria ("Alexandria"), and pursuant to Department of Energy ("DOE") Order No. 202-05-3 and Order No. 202-06-1, we respectfully request that the DOE immediately rescind its authorization for the operation of the Potomac River Generating Station ("PRGS") under the so-called Operating Plan "Option A". The PRGS is not operating pursuant to the operating configuration set out in "Option A" and its operation is in violation of Federal and Commonwealth of Virginia air quality standards. We also submit comments herein to reply to the Potomac Electric Power Company's ("PEPCO") April 13, 2006 Response to Alexandria's Supplemental Comments filed in the above-referenced proceeding.

I.

## INTRODUCTION

Alexandria, PEPCO and others have adequately set out the background and details of this proceeding in their Comments and Supplemental Comments submitted pursuant to the above-noted DOE Orders. Suffice it to say here, the focus of Alexandria's Request for Rehearing and Supplemental Comments was the DOE's failure to (i) adequately evaluate short-and long-term public health and environmental issues related to the operation of the Potomac River Generating Station ("PRGS") and (ii) identify and evaluate alternatives for mitigating the deemed "emergency" set out in DOE Order 202-05-3 issued on December 20, 2005 ("December 20 Order"). Alexandria's concerns are heightened by the failure of the DOE and the Federal and Commonwealth of Virginia environmental agencies to monitor the operation of the PRGS and the lack of any serious review of alternatives to the electricity generation and transmission capacity of the PRGS. These alternatives should necessarily include fully exhausting all available sources of electricity generation and transmission in conjunction with substantive demand reduction programs. This DOE proceeding has resulted in only one approach – operation of Mirant's antiquated, polluting coal plant in the heart of Alexandria's residential



communities. Thus, the full burden of the "emergency" unnecessarily falls on only one group – the residents of Alexandria.

The pertinent facts related to Alexandria's request are as follows. On December 30, 2005, Mirant Potomac River, LLC ("Mirant"), submitted to DOE its proposal for operating the PRGS during an "intermediate phase" of the resumption of plant operations. See Operating Plan of Mirant Potomac River, LLC, In Compliance with Order No. 202-05-03, December 30, 2005 ("Operating Plan"). Under Operating Plan "Option A", Mirant proposed to operate one of its three baseload units (Units 3, 4, 5) continuously, without constraints as to load or operating hours, and its two cycling units (Units 1, 2) up to 16 hours per day each with constraints on load and operating hours. See Operating Plan at 4.

On January 4, 2006, without any analysis from the Federal or Commonwealth of Virginia environmental agencies, DOE instructed Mirant to immediately implement "Option A" as identified in the December 30th proposal. See Kevin M. Koveslar, DOE, Letter to Lisa D. Johnson, Mirant, January 4, 2006. The underlying assumption for DOE's authorization to Mirant is the need to satisfy electricity reliability for the District of Columbia strictly tailored to the particular circumstances to alleviate local air quality concerns. This does not encompass the generation of excess electricity for the wholesale power market. Neither the U.S. Environmental Protection Agency ("EPA") nor the Virginia Department of Environmental Quality ("DEQ") are monitoring the operations for their compliance with the December 20 Order. As discussed below, the PRGS's current operations violate the limits of the Order and air quality standards.

II.

## THE PRGS IS OPERATING IN VIOLATION OF DOE ORDER NO. 202-05-3 AND AIR QUALITY STANDARDS

"Option A" Violates The NAAQS For Fine Particulate Matter. Section VI of the December 20 Order states that any operational scenario for the PRGS must not cause or significantly contribute to any exceedance of the National Ambient Air Quality Standards ("NAAQS"). December 20 Order at 10. The NAAQS and Virginia air quality standards include short-term and annual limits for fine particulate matter ("PM<sub>2.5</sub>"). The PRGS is the largest single source of PM<sub>2.5</sub> in Alexandria with harmful emissions from its five utility boilers as well as the non-combustion activities and processes on the PRGS site. Due to the age and type of the PRGS's particulate control devices, excessive releases of PM<sub>2.5</sub> are unavoidable. In its last full year of operation, as shown in its own annual emissions reports, the PRGS emitted almost 400 tons of PM<sub>2.5</sub>.

<sup>&</sup>lt;sup>1</sup> There is a plethora of recent studies and analyses showing the harmful health impacts of short- and long-term exposure to PM<sub>2.5</sub> and describing the correlation between elevated levels of fine particulate matter and severe adverse cardiovascular and pulmonary health effects.



The operation of the PRGS under "Option A" violates the NAAQS for PM<sub>2.5</sub>. Set out below are the results (Table 1) of Alexandria's analysis, using modeling procedures that PRGS's consultant applied to its ambient air analysis for other NAAQS pollutants, of the fine particulate impacts from the "Option A" operational scenario. The impacts are severe. For example, at Marina Towers, a high-rise building immediately adjacent to the PRGS where approximately 500 Alexandrian residents live, the PRGS's impacts alone, without considering the already high background levels, contribute PM<sub>2.5</sub> to the ambient air in concentrations that are close to several multiples of the standard. Also, absent from these calculations is the post-release conversion of the PRGS's other pollutant emissions – "precursor" emissions – into fine particulate matter in the ambient air which contributes to PM<sub>2.5</sub> impacts beyond the results shown in Table 1.

Mirant's Potomac River Generating Station, Alexandria, Virginia					
		Modeled	Monitored		
Operating	Averaging	Impact <sup>(a)</sup>	Concentration <sup>(b)</sup>	Total Impact	NAAQS
Scenario	Period	(μg/m³)	(μg/m³)	(μg/m <sup>3</sup> )	(μg/m³)

39.

14.6

65<sup>(c)</sup>

15

142.3

41.2

Table 1. Maximum Ambient Impacts of Fine Particulate (PM2.5) from

103.3

26.6

24-hr

Annual

Option A

**EPA Has Not Approved Any PRGS Operational Scenario.** The December 20 Order requires consultation with EPA for approval of any operational plan for the PRGS. To date this has not occurred. Put differently, the PRGS is operating without necessary oversight of the regulatory environmental agencies. This is particularly troubling in light of EPA's own modeling that indicates exceedances of air quality by the PRGS.

Mirant's December 30, 2005 Operating Plan completely ignores the PRGS's emissions or impacts of PM<sub>2.5</sub>. Alexandria's analysis shows that the PRGS's operation under "Option A" also violates the NAAQS for PM<sub>10</sub> and sulfur dioxide ("SO<sub>2</sub>"). In light of the severity of the PRGS's impacts, the area's non-attainment status for PM<sub>2.5</sub>, and the DOE's complicity in the adverse risk to public health, the PRGS should again cease operating and its Operating Plan completely reevaluated.

<sup>(</sup>a) Modeled impacts reflect only primary PM-2.5 emissions from the PRGS. No nearby sources were modeled. Secondary PM-2.5 emissions were not modeled. Values derive from the five-year average of the short-term and annual maximums for the period of 2000 through 2004.

<sup>(</sup>b) Monitored PM-2.5 concentrations are averages of three years of VDEQ monitoring results from the Aurora Hills Visitor Center in Arlington County.

<sup>(</sup>c) EPA has proposed a lower 24-hr average NAAQS of 35 μg/m<sup>3</sup>.



The PRGS Operates Outside The DOE-Approved Operating Scenario. Separate from the issue of the environmental agencies' lack of review and oversight, the PRGS is operating outside the scope of "Option A" as submitted to and approved by DOE. Recent, documented inspection by Alexandria staff shows that the PRGS's operation is not consistent with the operating configurations set out in "Option A". For example, PRGS's current operation includes the simultaneous running of two baseload units. In addition to its identification of unit operations and constraints, "Option A" also prescribes a daily, plant-wide SO<sub>2</sub> limit of 0.24 lb per MMBtu. PRGS's current operation results in SO<sub>2</sub> emissions that exceed the limit of 0.24 lb per MMBtu. Alexandria's analysis confirms that current operating scenarios violate the NAAQS, thereby increasing the public health risk to the residents of Alexandria's communities adjacent to and nearby the PRGS.

III.

## DOE HAS FAILED TO ANALYZE ALL ALTERNATIVES

Under emergency conditions, the DOE should conduct comprehensive analyses of identified alternatives and programs, with full disclosure and opportunities for public input, and allocate the burdens of mitigating the emergency among all interested parties. The DOE failed to do this. In its Supplemental Comments filed in the above-referenced Docket, Alexandria identified potential electricity generation and transmission alternatives that, on a cumulative basis and considering varying load scenarios, may allow reduction or elimination of power generation at the PRGS and, therefore, reduction or elimination of the adverse public health and environmental impacts of the PRGS. In light of the continuing violations of environmental standards by the PRGS, these alternatives provide DOE a pragmatic and comprehensive response to the deemed "emergency" and should be analyzed fully for their contributions to both short- and long-term electricity generation and transmission. Even a limited contribution to power generation and transmission could alleviate a certain level of polluting emissions for Alexandria and surrounding jurisdictions, including the District of Columbia.

On April 13, 2006, PEPCO submitted its Response to Alexandria's Supplemental Comments.<sup>2</sup> Rather than consider the cumulative impact of these and other potential alternatives for generation and transmission, PEPCO chose to summarily dismiss each alternative in isolation. It failed to provide any analytical information on supplemental measures. This should not preclude a comprehensive analysis of possibilities for supplemental generation and means of transmission which cumulatively could mitigate certain reliability concerns. DOE's review should not end with PEPCO's statements in its Reply. Rather, DOE should fully analyze these and other alternatives in the context of DOE's "emergency." The following comments illustrate a few of the deficiencies of PEPCO's Response.

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<sup>&</sup>lt;sup>2</sup> See Letter from Kirk J. Emge, General Counsel, Potomac Electric Power Company, to the Honorable Samuel W. Bodman, April 13, 2006.



**PEPCO's Response Is Inadequate.** PEPCO dismisses Alexandria's suggested alternatives in a cursory manner. For example, as set out in Alexandria's Supplemental Comments, AMTRAK and CSX have transmission lines into the District which could significantly enhance electricity reliability in the District of Columbia. PEPCO responds merely that it is already working with AMTRAK and CSX by bringing power into the District of Columbia over these transmission lines.<sup>3</sup> PEPCO does not identify, however, the specific AMTRAK and CSX transmission lines or facilities used, the amount of power added to D.C., regulatory guidelines and constraints, if any, excess transmission capability, and the potential for any long-term contribution to reliability. Furthermore, there is no public confirmation from either AMTRAK or CSX concerning these arrangements.

**PEPCO Ignores Short-Term Cumulative Effects.** As stated above, no single identified alternative fully replaces the electricity generation and transmission capacity of the PRGS. In combination, however, these alternatives could help to alleviate an "emergency" situation. For example, in response to Alexandria's recommendations regarding connections between PEPCO and Virginia Power, PEPCO states that there are 69 kV circuits available only for emergency operations.<sup>4</sup>

The current 69 kV circuit between PEPCO and Virginia Power and the 69 kV circuits between Buzzard Point and the Potomac River substation dedicated to emergency power could substitute for some generation at PRGS. Contrary to PEPCO's statement, a connection between Virginia Power and the PRGS could enhance reliability during nonpeak periods, particularly with transformer upgrades. Again, the contribution to reliability of this alternative in combination with other activities is important and warrants full analysis. Since the load in the District of Columbia varies significantly, these emergency alternatives could substitute for generation at the PRGS during low load periods. Yet PEPCO does not fully address the emergency scenarios under which these operate. And again, PEPCO does not address any long-term contribution to reliability from an enhancement of these emergency connections.

**Demand Response.** As set out in Alexandria's Supplemental Comments, load reduction and management programs should be explored to the maximum extent possible. PEPCO's astonished reaction to Alexandria's suggestion to accelerate demand response management falls on deaf ears in the Alexandria communities suffering the adverse health impacts of the operation of the PRGS. To reduce demand in the face of an "emergency" is something that should have been addressed immediately. Alexandria's concern is that the "reasoned approach . . . recommended by the [DCPSC] as encouraged by the DOE" is woefully inadequate in an "emergency" situation.

<sup>5</sup> <u>Id.</u>

<sup>&</sup>lt;sup>3</sup> <u>Id.</u> at 2.

 $<sup>^4 \</sup>overline{\underline{Id.}}$  at 3.

<sup>&</sup>lt;sup>6</sup> <u>Id.</u> at 7. PEPCO exaggerates the impact of Alexandria's suggestion in its Supplemental Comments. To eliminate the burden placed exclusively on the residents of Alexandria, the focus should be to develop a balance of sacrifices imposed on all interested parties.



## **CONCLUSION**

The December 20 Order is clear: an operational scenario for the PRGS must not cause or significantly contribute to any exceedance of the NAAQS. The DOE, EPA and DEQ have failed to satisfy this requirement and are negligent in allowing the PRGS to operate in violation of air quality standards. Until it can verifiably demonstrate that its operation does not cause or significantly contribute to violations of any of the NAAQS, the PRGS should cease operating. Furthermore, the DOE should explore and implement all alternate measures for the generation and transmission of electricity to reduce reliance on the PRGS.

Respectfully Submitted,

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