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March 23, 2006

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# **VIA ELECTRONIC AND FIRST CLASS MAIL**

Mr. Lawrence Mansueti
Management and Program Analyst
Permitting, Siting, and Analysis Division
Office of Electricity Delivery and Energy Reliability (OE-20)
U.S. Department of Energy
1000 Independence Avenue SW
Washington, DC 20585-0119

Re: Docket No. EO-05-01

City of Alexandria's Supplemental Comments

Dear Mr. Mansueti:

Pursuant to the Department of Energy Order No. 202-06-1, and for filing in the above-referenced proceeding, enclosed please find the Supplemental Comments of the City of Alexandria, Virginia.

Respectfully submitted,

John B. Britton

SCHNADER HARRISON SEGAL & LEWIS LLP Counsel for the City of Alexandria

Ignacio B. Pessoa City Attorney City of Alexandria

JBB/maj

Attachment

cc: Service List (via electronic mail)

# UNITED STATES OF AMERICA DEPARTMENT OF ENERGY

Emergency Petition and Complaint of	)	
The District of Columbia	)	Docket No. EO-05-01
Public Service Commission	)	Re: Order No. 202-05-3

# CITY OF ALEXANDRIA'S SUPPLEMENTAL COMMENTS RE: EMERGENCY ORDER

Pursuant to Section 313 of the Federal Power Act ("FPA"), 16 U.S.C. § 8251, and Department of Energy ("DOE") Order No. 202-06-01, the City of Alexandria, Virginia ("Alexandria") hereby submits these Supplemental Comments to its Application for Rehearing (Re: DOE Order No 202-05-3), dated January 19, 2006.

I.

# **BACKGROUND**

On December 20, 2005, pursuant to section 202(c) of the FPA, 16 U.S.C. § 824a(c), Secretary Samuel W. Bodman (the "Secretary") issued DOE Order No. 202-05-3. The Order was the Secretary's response to an emergency petition and complaint filed by the District of Columbia Public Service Commission ("DCPSC") on August 24, 2005. In his Order, the Secretary deemed the shutdown of the Potomac River Generating Station ("PRGS") in Alexandria, Virginia an "emergency" and directed the Mirant Corporation ("Mirant") to resume operation of the PRGS.

On January 19, 2006, both Alexandria and David K. Paylor, Director of the Commonwealth of Virginia's Department of Environmental Quality ("VDEQ") submitted requests for rehearing of the Secretary's Order 202-05-3. The DCPSC submitted a request for qualification or in the alternative, rehearing of the Secretary's Order. On February 21, 2006, Alexandria also submitted comments pursuant to the January 20, 2006 Federal Register notice (71 Fed. Reg. 3279) concerning DOE's proposed Special Environmental Analysis ("SEA") related to the Secretary's December 20<sup>th</sup> Order. The Secretary extended until March 23, 2006 the time within which interested parties may respond to the December 20<sup>th</sup> Order to afford additional comments on issues raised in the rehearing requests and on the proposed operating scenarios submitted to DOE by the PRGS.

The focus of Alexandria's comments and request for rehearing is the failure of the Secretary to (i) adequately evaluate short-term and long-term public health and environmental issues related to the operation of the PRGS and (ii) identify and evaluate alternatives for mitigating the deemed electricity reliability "emergency". As stated in its Application for Rehearing, the only resolution offered by the Secretary is the resurrection

of an outmoded, dirty coal plant in the heart of Alexandria's residential communities. Without evaluation and implementation of alternative electricity generation and transmission and demand reduction programs, the full burden of the deemed "emergency" unnecessarily falls on only one sector- - Alexandria and its residents. The Secretary failed to evaluate any such alternatives and programs and determine their viability on either a short term or long-term basis. Despite the local and adverse consequences of his action, the Secretary assumes no liability for the health and welfare of Alexandria's residents and fails to impose any strict requirements on the other stakeholders in the process, such as Mirant, the Potomac Electric Power Company ("PEPCO"), PJM Interconnection and the DCPSC.

Alexandria reiterates its position that the Secretary's Order lacks a comprehensive, thorough, broad-based analysis, with respect to electricity capacity and demand and health and environmental issues, to support the determination of "emergency". These Supplemental Comments address (i) potential alternatives, albeit not an exhaustive list, to mitigate the "emergency" and (ii) the proposed operating scenarios for the PRGS.

II.

#### ALTERNATIVE ELECTRICITY TRANSMISSION

If this is a true emergency, the Secretary should have identified and evaluated all power generation and transmission alternatives to ensure electricity reliability in the District of Columbia. The Secretary failed to do this. Transmission alternatives include, but may not be limited to, the National Railroad Passenger Corporation ("AMTRAK") and CSX Corporation ("CSX") railroad rights of way and transmission lines that enter the District of Columbia from the north, rail transmission lines approaching the District from the South and Alexandria and currently existing but inactive transmission lines.

# A. Railroad Rights of Way and Transmission Lines

The AMTRAK corridor between the District of Columbia and Boston traverses several utility service areas including those of PEPCO, Baltimore Gas & Electric Company, Philadelphia Electric Company and Consolidated Edison. AMTRAK owns and operates major station properties in Washington DC, Baltimore, Wilmington, Philadelphia, New York and Boston. AMTRAK also owns transmission lines and transmission rights-of-way between these cities, which compose the geographical backbone of three of the largest regional grid operators on the east coast.

AMTRAK obtains power from electric utility companies and transmits this power over its own lines to serve AMTRAK activities. It resells any excess energy at its disposal. Although the power used by AMTRAK is 25 HZ, it is converted from 60HZ to 25 HZ at points of need for AMTRAK. Utility companies own the frequency converters. AMTRAK also owns the high voltage transmission line right-of way. Put simply, transmission lines exist coming into the District of Columbia from other utility areas and

from other major grid systems -- a potential short-term and long-term source of additional electricity for the District of Columbia.

The same situation may exist on transit lines coming into the District of Columbia from the Dominion Power area south of Washington DC. In addition, CSX may own inactive transmission lines that could deliver power to the District of Columbia. The Secretary failed to explore and evaluate any of these potential alternative sources of electricity.

## **B.** Inactive Circuits to Virginia Power

When PEPCO sold its Virginia business to Virginia Power (Dominion Resources) in 1991, one of the circuits was left open to provide emergency service to the Potomac River substation from the Rosslyn, Virginia substation. In the past, based on certain capacity requirements of the PRGS, electricity supply from northern Virginia has been transferred to PEPCO. This connection may be an additional source of electricity for the District of Columbia. In fact, in light of Virginia Power's membership in the PJM grid, PEPCO and Virginia Power could make this a permanent, even upgraded, connection. The Secretary failed to evaluate any transmission alternative from Virginia Power.

III.

#### ALTERNATIVE ELECTRICITY GENERATION

There are other electricity generation sources in the District of Columbia which the Secretary failed to evaluate in his determination of "emergency". These sources include Federal Government generators and Buzzard Point and Benning Road generation. These generators are in the District of Columbia and may require simple interconnections or switching of existing plant to energize inactive circuits and enhance electricity reliability in the District of Columbia.

#### A. Increased Capacity of Government and Commercial Generators

The General Services Administration ("GSA"), Smithsonian Institution, certain universities located in the District of Columbia and the D.C. Convention Center may be planning or have constructed cogeneration systems. For example, GSA cogeneration includes two (2) 5MW gas turbines and compressors and the Convention Center generates 4 MW. The Secretary failed to evaluate the impact of any cogeneration capability in or nearby the District of Columbia to increase electricity capacity on a short-term emergency basis.

## B. Increase Capacity of Buzzard Point and Benning Road Generators

PEPCO Energy Services, a subsidiary of PEPCO Holdings, Inc., owns the Buzzard Point Generation Station ("Buzzard Point") and the Benning Road Generation Station ("Benning Road") with production capacities of 256 MW and 550 MW

respectively. These facilities are located in the District of Columbia and their generating units are normally dispatched for emergency and/or peaking requirements.

The Buzzard Point generators could be connected, however, through two (2) 69 kV lines through the War substation in Virginia to the Potomac River 69 kV substation. These circuits are presently open during normal daily PRGS operations. In the past, when emergencies occurred at the PRGS bus, the Buzzard Point units would be connected through the War substation to the Potomac River substation to supply emergency power for the downtown DC area. Furthermore, this operational connection could be upgraded and made permanent, another source of electricity reliability not evaluated by the Secretary.

The situation for the Benning Road facility is similar to that of Buzzard Point. The normally disconnected circuits between the Benning Road and Buzzard Point generators could be connected allowing electricity flows from Benning Road to Buzzard Point to the Potomac River substation. Although these units are peaking units similar to those at Buzzard Point, these connecting circuits could be upgraded and made permanent. The Secretary failed to evaluate any connection related to Benning Road.

#### C. I Street and Ninth Street Substations

District load normally served by the PRGS 69 kV bus could also be transferred to other generators serving the downtown DC area. The 9<sup>th</sup> Street and I Street substations load could be connected directly to the Buzzard Point generators and reduce the load served by the PRGS generators at peak time by approximately 250 MW. This is a significant amount of generation to mitigate the reduction of operation at the PRGS.

In addition, 138 kV and 230 kV high voltage transmission lines delivering power from the PEPCO ring to the Buzzard Point generator bus could also serve the 9<sup>th</sup> Street and I Street substation loads. This alternative would allow the PEPCO system to accommodate electricity loads normally served by PRGS, and produce added redundancy for PEPCO's downtown network.

IV.

#### LOAD REDUCTION PROGRAMS

The Secretary should have, but did not, identify specific, emergency and non-emergency load reduction programs in the District of Columbia to compensate for electricity generation or transmission reduction at PRGS. In his Order, the Secretary did not rely on or refer to emergency or non-emergency load reduction plans or other energy use management programs to mitigate the impact of the shutdown of the PRGS. Particularly in light of the significant use of electricity by government customers, the Secretary should have imposed certain levels of emergency load shedding or load cycling for Federal and District of Columbia buildings. In this, the Secretary's Order is totally deficient.

Many large commercial and governmental customers in the District of Columbia have already undertaken load reduction programs in non-emergency situations. The Secretary failed to identify any of them and their capacity to reduce load on an emergency or requested basis. On a smaller scale, a non-emergency load reduction program undertaken by the District of Columbia is the Reliable Energy Trust Fund Program developed by the District of Columbia Energy Office. Although of limited scope, the program identifies conservation programs that DCPSC approves for usage and load reduction and assists in implementing renewable energy resources. An "emergency" situation would warrant a more targeted approach to implement these load reduction and renewable energy programs to save energy, produce electricity at distributed loads and ensure the public health and welfare.

Although these load reduction and management programs may not be individually determinative, in combination with the utilization of transmission and generation alternatives, they could have a significant, positive impact on electricity reliability for the DC downtown area. Appropriate load levels and redundancies could be maintained without the PRGS generation and transmission and without jeopardizing the health and welfare of Alexandria's residents.

V.

#### MIRANT OPERATING SCENARIOS

Shielded by the Secretary's Order, the PRGS operated all five of its generators during maintenance operations conducted by PEPCO on the two 230 kV circuits connecting the Palmers Corner and Potomac River substations. This maintenance period occurred in two stages from January 12, 2006 to January 20, 2006 and January 23, 2006 to January 28, 2006. (See Pepco Holdings, Inc. letter of March 17, 2006 to The Honorable Samuel W. Bodman.) According to Exhibit D of Mirant's Supplement No. 3 to its Operating Plan, the PRGS used environmental controls--trona injection system--on two of the generating units at least partially during this maintenance period. During this time, however, PRGS recorded significant increases in opacity, up to three times over the expected levels. Furthermore, with operations at near full load, the PRGS's continuous emission monitoring systems recorded levels of sulfur dioxide emissions at 0.8 lb. per MMBtu and higher. Consequently, it is likely that the PRGS violated the short-term ambient air quality standards by multiple factors. In light of the Secretary's failure to implement alternative mitigation measures in this "emergency", the full-scale operation of the PRGS operation at this time was an unacceptable, adverse public health burden on the residents of Alexandria.

Mirant has proposed two operating scenarios for resumption of the PRGS – Option A and Option B. The Secretary has authorized interim operations under Option A. An ambient air quality analysis shows, however, that maximum short-term and annual impacts for the criteria pollutants of nitrogen dioxide ("NO<sub>2</sub>"), sulfur dioxide (SO<sub>2</sub>") and particulate matter exceed the compliance standards by between 1.02 and 29 times. There

are also significant harmful levels of hydrogen chloride that would be emitted from the PRGS under both Option A and Option B.

Furthermore, although Mirant is implementing a trona injection system to reduce sulfur dioxide emissions, this will not bring the PRGS into compliance with the ambient air quality standards. There are a number of problems with the use of trona. First, the trona injection technology has very limited application and an almost non-existent track record. Put starkly, there is no record of any significant, sustained reduction of sulfur dioxide through the use of trona at an electrical generating facility. Second, there are concerns related to the build-up of trona material on interior surface systems resulting in reduced operational efficiencies and emissions control.

Finally, even more egregious than the poor operational and performance record of trona, there is the potential for its use to actually increase pollutant emissions, particularly of fine particulate matter (" $PM_{2.5}$ "). The use of trona will likely decrease the efficiency of the heat exchangers, thereby requiring an increase in coal consumption and increasing overall emissions. In addition, the injection of trona, a particulate sorbent, into the coal combustion process at a rate of four (4) tons or more per hour necessarily results in a substantial increase of particulate matter from each generator. There is no dispute that inhaled  $PM_{2.5}$  significantly and adversely affects public health, an unacceptable harm and sacrifice for the residents of Alexandria.

## **CONCLUSION**

For the above reasons and those set forth in Alexandria's Application for Rehearing, Alexandria respectfully requests the Secretary to reconsider his determination with respect to the operation of the PRGS.

Respectfully submitted,

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## **CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing was on this day served by electronic mail on the persons listed below.

Dated at Washington, D.C., this 23<sup>rd</sup> day of March, 2006.

John B. Britton

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