



# SUSQUEHANNA RIVER BASIN COMMISSION

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**Docket No. 20061209**

**Approval Date: December 05, 2006**

## **EXELON GENERATION CO. LLC— PEACH BOTTOM ATOMIC POWER STATION**

Surface Water Withdrawal of up to 2,363.620 mgd, from Conowingo Reservoir,  
Drumore Township, Lancaster County, Pennsylvania,  
and Consumptive Water Use of up to 32.490 mgd (Peak Day)  
for Power Plant Operation at the Peach Bottom Atomic Power Station,  
Drumore Township, Lancaster County, and  
Peach Bottom Township, York County, Pennsylvania

### **Review Authority**

This project is subject to review pursuant to Article 3, Section 3.10, of the Susquehanna River Basin Compact (Compact), P.L. 91-575, 84 Stat. 1509 et seq., and Susquehanna River Basin Commission (Commission) Regulations §803.4, relating to projects requiring review and approval; §803.42, relating to the consumptive use of water; and §803.44, relating to surface water withdrawals. The Commission received the surface water withdrawal and consumptive water use application on October 3, 2006.

### **Description**

**Purpose.** The purpose of the application is to request approval for consumptive water use and surface water withdrawal for processes related to operations at the Peach Bottom Atomic Power Station (PBAPS).

**Location.** The project is located in the Susquehanna Subbasin, HUC 02050306, Drumore Township, Lancaster County, and Peach Bottom Township, York County, Pennsylvania.

**Project Features.** The project sponsor has requested approval for continued consumptive water use of up to 32.490 million gallons per day (mgd) on a peak day. The project sponsor has also requested approval for a surface water withdrawal of up to 2,363.620 mgd (peak day) from Conowingo Reservoir.

The project consists of two nuclear-powered, base-load electric generating units known as Unit 2 and Unit 3. Unit 2 is rated at 1,112 megawatts, and Unit 3 is rated at 1,112 megawatts. Units 2 and 3 at PBAPS began operation in July and December 1974, respectively, and have

open-cycle cooling systems with evaporative cooling towers that are used intermittently depending on metrological and reservoir conditions. PBAPS is approved by the Commission to consumptively use water in accordance with Resolution 93-04. Consumptive water use at PBAPS results from evaporation from detention basins, thermal loading on the reservoir surface, along with evaporation and drift losses when the cooling towers are in operation. Under the terms of Resolution 93-04, adopted by the Commission on September 16, 1993, the consumptive water use compensation provided by PBAPS through releases at the Conowingo Dam was determined to satisfy the Commission's compensation requirement for the existing operation.

Currently, consumptive water use makeup, as approved under Resolution 93-04, is provided by a release of water at the Conowingo Dam whenever streamflow at the Marietta gage is less than 2,700 cubic feet per second (cfs), such that the average daily streamflow measured at the Conowingo stream gage is always equal to or greater than the average daily streamflow measured at the Marietta gage plus 200 cfs. This compliance method applies to full or partial operation of the PBAPS, but not when both Units are shut down.

PBAPS received approval from the U.S. Nuclear Regulatory Commission (NRC) to uprate Unit 2 in 1994 and 2002, and Unit 3 in 1995 and 2002. In 2003, Exelon Generation Co., LLC (Exelon) received a license renewal from NRC extending the term of the licenses 20 years to 2033 (Unit 2) and 2034 (Unit 3).

### **Findings**

The project is subject to Commission approval and reporting requirements, as per Commission Regulations §803.42 and §803.44.

Prior to the approval of this docket, the project has been subject to Commission Resolutions 81-07, 83-04, 91-02, and 93-04. The Commission-approved method of compliance for the consumptive use of water at PBAPS is contained within Resolution 93-04. Because Resolution 93-04 predates the Commission's surface water withdrawal regulation, it contains no provisions or conditions related to surface water withdrawal.

The project sponsor identified that the surface water withdrawal at the facility will be increased sufficiently to be subject to Commission Regulation §803.44, relating to surface water withdrawals. The project sponsor has requested approval for the surface water withdrawal of up to 2,363.620 mgd from Conowingo Reservoir.

All water: 1) evaporated or otherwise lost from the cooling system or other power generation processes; and 2) evaporated off the surface of Conowingo Reservoir due to thermal loading, is considered to be a consumptive water use subject to Commission regulation.

Commission staff recommends that the project sponsor submit a plan to quantify the daily consumptive water use associated with operation of the plant and the thermal loading, and the project's total surface water withdrawal from Conowingo Reservoir for review and approval by Commission staff. The plan should contain metering that is accurate to within five percent, or other suitable methods of measurement on the water diverted to the facility, on the wastewater

and thermal discharges, and other locations, as appropriate, and on the total water withdrawal from Conowingo Reservoir. The project sponsor should report the daily consumptive water use and surface water withdrawal data to the Commission quarterly.

Should the proposed accounting procedure fail to measure PBAPS's consumptive water use and total water withdrawal from Conowingo Reservoir, the Commission reserves the right to modify the measuring, monitoring, and accounting procedures. Commission staff will provide the project sponsor with prior written notice of any required change in the measuring, monitoring, and accounting procedures. Any alternative measuring, monitoring, or accounting procedure requested by the project sponsor must be reviewed and approved by Commission staff.

The project's consumptive use of water is subject to water compensation requirements, as per Commission Regulation §803.42. To satisfy these requirements, the project sponsor proposes to continue utilizing the compliance method first approved in Resolution 93-04, effective until September 16, 2011, and thereafter to utilize a method to be approved by the Commission. For so long as Exelon uses releases of water storage from the Conowingo Reservoir as its method for mitigating consumptive water use at PBAPS, if there is any noncompliance with the release requirement related thereto, Exelon proposes to make payments to the Commission in lieu of providing actual compensation water.

Commission staff recommends approval of the proposed consumptive water use method. Commission staff recommends Exelon submit a docket modification request on or before September 16, 2010, proposing a method to mitigate for consumptive water use at PBAPS for the remaining term of its NRC license after the existing compensation agreement expires. In the event it fails to do so, Commission staff recommends that the approved method of compliance after September 16, 2011, be payment of the Commission's prevailing use fee.

The existing surface water withdrawal predates the effective date of Commission Regulation §803.44; however, the project sponsor's increase in withdrawal from Conowingo Reservoir triggers Commission review and approval.

Commission staff recommends approval of the requested surface water withdrawal of up to 2,363.620 mgd (peak day), as submitted by the project sponsor.

Commission staff contends that the project sponsor, at times, operated PBAPS inconsistent with Commission regulations since August 1999, when its surface water withdrawal exceeded the regulation threshold. Commission staff also contends that the project sponsor did not fully comply with its consumptive use mitigation requirements as set forth in Resolution 93-04. The project sponsor voluntarily submitted its application to the Commission, complied with application procedures, and cooperated with Commission staff during its review of the project. The project sponsor has offered a settlement to the Commission for these matters. Commission staff recommends acceptance of the project sponsor's proposed settlement.

The project sponsor has paid the appropriate application fee, in accordance with Commission Regulation §803.28, and in accordance with Commission Resolution 2005-03. The

project sponsor has provided all proofs of notification, as required by Commission Regulation §803.25.

No adverse impacts to other area surface water withdrawals are anticipated. The project is physically feasible, does not conflict with or adversely affect the Commission's Comprehensive Plan, and does not adversely influence the present or future use and development of the water resources of the basin.

Commission staff recommends the term of this docket modification to be coterminous with the Unit 3 NRC license, effective until July 3, 2034.

### **Decision**

1. The project's surface water withdrawal from Conowingo Reservoir of up to 2,363.620 mgd, and consumptive water use of up to 32.490 mgd (peak day), are approved pursuant to Article 3, Section 3.10, of the Compact.

2. The foregoing findings are hereby adopted and shall be incorporated into and made a part of this decision.

3. The project sponsor shall comply with all Commission regulations, including consumptive water use and surface water withdrawal reporting requirements, as per Commission Regulations §803.42 and §803.44.

4. The project sponsor shall keep daily records of the consumptive water use and surface water withdrawal, and shall report the data to the Commission quarterly, and as otherwise required. Quarterly monitoring reports are due within thirty (30) days after the close of the preceding quarter.

5. The project sponsor's Settlement Agreement, pursuant to Commission Regulation §805.27, for alleged noncompliance with Commission regulations and consumptive use mitigation requirements as set forth in Resolution 93-04, is hereby accepted.

6. Within sixty (60) days from the date of this approval, the project sponsor shall submit to the Commission for review and approval by Commission staff a plan to meter or use other suitable methods of measuring surface water withdrawals that account for all water withdrawn from Conowingo Reservoir, the wastewater and thermal discharge, and the total consumptive water use at the PBAPS facility. Following approval, the project sponsor shall execute the plan and complete any installation of meters or other means of measuring surface water withdrawals in accordance with the approved schedule, and shall certify to the Commission that the monitoring plan has been implemented.

7. To satisfy the Commission's current compensation requirements for consumptive water use set forth in Commission Regulation §803.42, the project sponsor shall release water at the Conowingo Dam whenever streamflow at the Marietta gage is less than 2,700 cfs, such that the average daily streamflow measured at the Conowingo stream gage is always equal to or

greater than the average daily streamflow measured at the Marietta gage plus 200 cfs. This compliance method applies to full or partial operation of the PBAPS, but not when the plant is shut down and is effective until September 16, 2011. Thereafter, its method of compliance shall be as set forth below. If there is any noncompliance with the release requirement from the Conowingo Reservoir, Exelon shall pay the Commission a consumptive use fee for the entire calendar year in which the violation occurred, based on the applicable Commission rate (currently \$0.14 per 1,000 gallons), for the facility's actual total consumptive use for such calendar year, as its alternate method of mitigation for that year. The rate of payment, after appropriate notice to consumptive users of water using this method of compliance, is subject to change at the Commission's discretion.

8. On or before September 16, 2010, Exelon shall submit a docket modification request proposing a method to mitigate for consumptive use at the facility for the remaining term of its docket after September 16, 2011. The proposed method may be a modification of, or alternative to, the mitigation method described in Condition 7 above.

9. Should Exelon not submit a modification request to the Commission pursuant to Docket Condition 7 above, the payment of the Commission's prevailing consumptive use fee shall be the method for meeting PBAPS's consumptive use mitigation requirement for the remaining term of its Docket after September 16, 2011.

10. All prior approvals issued by the Commission for PBAPS are hereby superseded by this approval, to the extent inconsistent with this approval.

11. Commission approval shall not be construed to exempt the project sponsor from obtaining all necessary permits and/or approvals required for the project from other federal, state, or local government agencies having jurisdiction over the project. The Commission reserves the right to modify, suspend, or revoke this action if the project sponsor fails to obtain or maintain such approvals.

12. The Commission reserves the right to inspect or investigate the project facility, and the project sponsor shall allow authorized employees or agents of the Commission, without advance notice or a search warrant, at any reasonable time and upon presentation of appropriate credentials, and without delay, subject to applicable NRC regulations, to have access to and to inspect all areas where the project is being constructed, operated, or maintained. Such employees or agents shall be authorized to conduct tests or sampling; to take photographs; to perform measurements, surveys, and other tests; to inspect the methods of construction, operation, or maintenance; to inspect all measurement equipment; to audit, examine, and copy books, papers, and records pertinent to any matter under investigation; and to take any other action necessary to assure that the project is constructed, operated, or maintained in accordance with the terms and conditions of this approval or any other rule, regulation, or order of the Commission.

13. If the project sponsor fails to comply with the provisions of the Compact or any rule, regulation, or order of the Commission, or any term or condition of this docket, the Commission may suspend, modify, or revoke its approval of same, and may impose appropriate penalties.

Upon written notice by the Commission, the project sponsor shall have thirty (30) days to correct such noncompliance, unless an alternate period is specified in the notice. Nothing herein shall preclude the Commission from exercising its authority to immediately modify, suspend, or revoke this approval where it determines exigent circumstances warrant such action, nor shall it preclude the Commission from imposing penalties for such noncompliance.

14. The Commission reserves the right to reopen any project docket or issue such additional orders, as may be necessary, to mitigate or avoid adverse impacts or otherwise to protect public health, safety, welfare, or the environment.

15. Commission approval confers no property rights upon the project sponsor. The securing of all rights necessary and incident to the project sponsor's development and operation of the project shall be the sole and exclusive responsibility of the project sponsor, and this approval shall be subject thereto.

16. This approval is effective until July 3, 2034. The project sponsor shall submit a renewal application by January 3, 2034, and obtain Commission approval prior to continuing operation beyond July 3, 2034.

17. If the project is discontinued for such a time and under such circumstances that an abandonment of the project may be reasonably inferred, the Commission may rescind the approval of the project unless a renewal is requested by the project sponsor and approved by the Commission.

By the Commission:



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Kenneth P. Lynch, Chair  
New York Commissioner

Dated: December 5, 2006