March 12, 2008

Mr. Charles G. Pardee
Chief Nuclear Officer and Senior Vice President
Exelon Generation Company, LLC
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 LICENSE AMENDMENT REQUEST FOR APPLICATION OF ALTERNATIVE SOURCE TERM

Dear Mr. Pardee:

By letter to the Nuclear Regulatory Commission (NRC) dated July 13, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML072570151), Exelon Generation Company, LLC (the licensee), submitted a License Amendment Request (LAR) for application of Alternative Source Term at Peach Bottom Atomic Power Station, Units 2 and 3. The NRC staff has reviewed the request submitted by the licensee and has identified a need for additional information as set forth in the Enclosure.

The draft questions were sent to David Helker, from your staff, to ensure that the questions were understandable, the regulatory basis for the questions was clear, and to determine if the information was previously docketed. On February 26, 2008, Mr. Helker indicated that the licensee will submit a response by March 28, 2008. Please note that if you do not respond to this letter within this agreed response time or provide an acceptable alternate date in writing, we may reject your application for amendment under the provisions of Title 10 of the *Code of Federal Regulations*, Section 2.108. If you have any questions, please contact John Hughey at (301) 415-3204.

Sincerely,

/ra/

John D. Hughey, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

cc: See next page

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Chief Nuclear Officer and Senior Vice President
Exelon Generation Company, LLC
200 Exelon Way
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/ra/

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Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

cc: See next page

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ADAMS Accession Number: ML080650082 *by memo dated

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DATE	3/10/2008	3/6/2008	2/26/2008	3/12/2008

OFFICIAL RECORD COPY

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REQUEST FOR ADDITIONAL INFORMATION

REGARDING LICENSE AMENDMENT REQUEST

FOR THE APPLICATION OF ALTERNATIVE SOURCE TERM AT

PEACH BOTTOM ATOMIC POWER STATION, UNITS NO. 2 AND 3

DOCKET NOS. 50-277 AND 50-278

By letter dated July 13, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML072570151), Exelon Generation Company, LLC (the licensee), submitted a License Amendment Request (LAR) for application of Alternative Source Term at Peach Bottom Atomic Power Station, Units 2 and 3. The Nuclear Regulatory Commission (NRC) staff has reviewed the LAR provided in the July 13, 2007, submittal. In order for the NRC staff to complete its evaluation, response to the following requests for additional information (RAI) questions is requested.

SCVB RAI 1

In Attachment 1, Section 4.3.12, "Determination of MSIV [main steam isolation valve] Leak Rates in Various Steam Line Volumes," you state: "Since the actual MSIV leak rate is reduced at the accident condition due to the combined effects of compression (due to the high pressure) and expansion (due to the high temperature), the increase in the MSIV leak rates to the environment from the TSVs [turbine stop valves] are conservatively calculated using the Ideal Gas Law and drywell post-LOCA [Loss-of-Coolant Accident] peak pressure and temperature." Please clarify the statement that actual MSIV leakage rate is reduced at the same time that the MSIV leak rates are increased.

SCVB RAI 2

The Control Room Fuel Handling Accident dose is analyzed for the Turbine Building /Reactor Building Ventilation Stack Release in Attachment 1, Section 4.4.5, "Control Room Model." Please discuss the ventilation systems relied upon for the Turbine Building /Reactor Building Ventilation Stack Release with regard to their safety classification, use of emergency power, and surveillance testing. If these systems are not safety-related please justify their use as the only release pathway.

Enclosure

SCVB RAI 3

In Attachment 2, modified Unit 2 and Unit 3 Technical Specification 3.6.4.1, “Secondary Containment,” you propose adding SR 3.6.4.1.4 to verify that the secondary containment can be maintained ≥0.25 inch of vacuum water gauge for 1 hour using one Standby Gas Treatment (SGT) subsystem at a flow rate ≤10,500 cubic feet per minute (cfm). Technical Specification 5.5.7, “Ventilation Filter Testing Program,” indicates that the SGT high efficiency particulate air (HEPA) filters and the SGT charcoal adsorber are both tested at a flow rate of 7200 to 8800 cfm. Please discuss this apparent discrepancy. If the intention is to downgrade the SGT HEPA filters and the SGT charcoal adsorber, please discuss this downgrade with respect to Regulatory Guide 1.183, “Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors,” Regulatory Position 1.1.2, “Defense in Depth.”