

July 12, 2012

MEMORANDUM TO: Meena K. Khanna, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

FROM: Richard B. Ennis, Senior Project Manager */ra/*
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3,
DRAFT REQUEST FOR ADDITIONAL INFORMATION (TAC NOS.
ME7538 AND ME7539)

The attached draft request for additional information (RAI) was transmitted on July 12, 2012, to Mr. Thomas Loomis of Exelon Generation Company, LLC (Exelon, the licensee). This information was transmitted to facilitate an upcoming conference call in order to clarify the licensee's amendment request for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, dated November 3, 2011, as supplemented on December 22, 2011, April 4, 2012, May 17, 2012, and June 21, 2012. The proposed amendment would modify the Technical Specifications (TSS) to include the use of neutron absorbing spent fuel pool (SFP) rack inserts for the purpose of criticality control in the SFPs at PBAPS, Units 2 and 3.

The draft RAI was sent to Exelon to ensure that the questions are understandable, the regulatory basis for the questions is clear, and to determine if the information was previously docketed. This memorandum and the attachment do not convey or represent an NRC staff position regarding the licensee's request.

Docket Nos. 50-277 and 50-278

Attachment: Draft RAI

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Attachment: Draft RAI

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DRAFT REQUEST FOR ADDITIONAL INFORMATION
REGARDING PROPOSED LICENSE AMENDMENT
USE OF NEUTRON ABSORBING SPENT FUEL POOL RACK INSERTS
PEACH BOTTOM ATOMIC POWER STATION - UNITS 2 AND 3
DOCKET NOS. 50-277 AND 50-278

By letter to the Nuclear Regulatory Commission (NRC) dated November 3, 2011, as supplemented on December 22, 2011, April 4, 2012, May 17, 2012, and June 21, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML113081441, ML113570208, ML12096A052, ML12139A404, and ML12188A094 respectively), Exelon Generation Company, LLC (Exelon, the licensee), submitted a License Amendment Request (LAR) for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The proposed amendment would modify the Technical Specifications (TSs) to include the use of neutron absorbing spent fuel pool (SFP) rack inserts for the purpose of criticality control in the SFPs at PBAPS, Units 2 and 3.

The NRC staff has reviewed the information the licensee provided that supports the proposed amendment and would like to discuss the following issues to clarify the submittal.

RAI-41

Attachment 4 to Reference 1 provided NETCO Report NET-350-01, Revision 1, "2010 Badger Test Campaign at Peach Bottom Unit 2." Table 4-1 of NET-350-01, in part, showed the absorbed dose for a number of the Unit 2 SFP panels.

In Attachment 1 to Reference 2, Exelon provided the following response to RAI-29:

RACKLIFE 2.0 statepoints were run for both PBAPS units on April 18, 2012 in accordance with station procedures that require a projection every 6 months. RACKLIFE output is contained in Attachment 3 ("RAI-29 - RACKLIFE 2.0 Statepoint Runs"). The spreadsheets provide the panel location, the predicted absorbed panel dose (RADs), and the predicted percent B4C loss (%).

The absorbed dose on some of the panels is shown as being less in Attachment 3 to Reference 2 (i.e., 2012 data) when compared to the values shown in Table 4-1 of NET-350-01 (i.e., 2010 data). Please explain this apparent discrepancy (i.e., absorbed doses decreasing with time). See table below for some examples.

Unit 2 Panel	2010 Absorbed Dose (Rads) (per Table 4-1 of NET-350-01)	2012 Absorbed Dose (Rads) (per Attachment 3 of Ref. 2)
3E27 North	1.31E+10	7.95E+09
3E27 West	1.32E+10	8.73E+09
3E27 South	1.32E+10	6.84E+09
3E27 East	1.32E+10	8.79E+09
3D26 South	1.36E+10	5.99E+09

References

1. Exelon letter dated April 18, 2011, "Spent Fuel Pool Criticality Documents" (ADAMS Accession No. ML111120271)
2. Exelon letter dated June 21, 2012, "Response to Request for Additional Information - License Amendment Request for Use of Neutron Absorbing Inserts in Units 2 and 3 Spent Fuel Pool Storage Racks" (ADAMS Accession No. ML12188A094)