



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

October 10, 2017

Mr. Bryan C. Hanson  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 –  
SUPPLEMENTAL INFORMATION NEEDED FOR ACCEPTANCE OF  
REQUESTED LICENSING ACTION RE: ADOPTION OF TITLE 10 OF THE  
CODE OF FEDERAL REGULATIONS SECTION 50.69 (CAC NOS. MG0181  
AND MG0182; EPID L-2017-LLA-0281)

Dear Mr. Hanson:

By letter dated August 30, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17243A014), Exelon Generation Company, LLC (Exelon, the licensee) submitted a license amendment request for the Peach Bottom Atomic Power Station, Units 2 and 3. The proposed amendments would revise the licensing basis by adding a license condition to allow for the implementation of the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.69.

The purpose of this letter is to provide the results of the U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this amendment request. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with 10 CFR 50.69, an amendment to the license (including the technical specifications) must fully describe the changes requested, and following, as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff has reviewed your application and concluded that the information listed in the enclosure to this letter is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed amendments in terms of regulatory requirements and the protection of public health and safety and the environment.

In order to make the application complete, the NRC staff requests that Exelon supplement the application to address the information requested in the enclosure by October 27, 2017. This will enable the NRC staff to begin its detailed technical review. If the information responsive to the NRC staff's request is not received by this date, the application will not be accepted for review pursuant to 10 CFR 2.101, and the NRC will cease its review activities associated with the application. If the application is subsequently accepted for review, you will be advised of any further information needed to support the staff's detailed technical review by separate correspondence.

B. Hanson

- 2 -

The information requested and associated timeframe in this letter were discussed with Mr. Richard Gropp and other members of your staff, in a conference call with the NRC staff, on October 10, 2017.

If you have any questions, please contact me at (301) 415-1420 or [Rick.Ennis@nrc.gov](mailto:Rick.Ennis@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "R B Ennis". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Richard B. Ennis, Senior Project Manager  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

Enclosure:  
Supplemental Information Needed

cc w/Enclosure: Distribution via Listserv

SUPPLEMENTAL INFORMATION NEEDED  
LICENSE AMENDMENT REQUEST RE: ADOPTION OF  
TITLE 10 OF THE CODE OF FEDERAL REGULATIONS SECTION 50.69  
EXELON GENERATION COMPANY, LLC  
PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3  
DOCKET NOS. 50-277 AND 50-278

By letter dated August 30, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17243A014), Exelon Generation Company, LLC (Exelon, the licensee) submitted a license amendment request (LAR) for the Peach Bottom Atomic Power Station, Units 2 and 3 (Peach Bottom). The proposed amendments would revise the licensing basis by adding a license condition to allow for the implementation of the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.69.

The regulations in 10 CFR 50.69(c)(1)(i) require that the probabilistic risk assessment (PRA) must be: (1) of sufficient quality and level of detail to support the categorization process; and (2) subjected to a peer review process assessed against a standard or set of acceptance criteria endorsed by the U.S. Nuclear Regulatory Commission (NRC). Section 50.69(b)(2)(iii) of 10 CFR requires that the results of the peer review process conducted to meet 10 CFR 50.69 (c)(1)(i) criteria be submitted as part of the application. Regulatory Guide (RG) 1.200, Revision 2, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities" (ADAMS Accession No. ML090410014), endorses, with certain clarifications and qualification, the industry PRA standard contained in the American Society of Mechanical Engineers (ASME)/American Nuclear Society (ANS) Standard ASME/ANS RA-Sa-2009 and provides guidance to licensees for determining the acceptability of their PRA by reviewing it against relevant parts of the standard using a peer review process. During a peer review, the documentation of differences or deficiencies between the licensee's PRA model and the NRC-endorsed industry PRA standards are generally labeled as facts and observations (F&Os). Nuclear Energy Institute (NEI) 05-04/07-12/12-06, Appendix X: "Close Out of Facts and Observations (F&Os)" (ADAMS Accession No. ML17086A451), as accepted by the NRC in a letter dated May 3, 2017 (ADAMS Accession No. ML17079A427), provides guidance to licensees for closing F&Os that were opened during the peer review process.

In its LAR, the licensee stated that it reviewed and closed findings using the process documented in Appendix X to NEI 05-04, NEI 07-12, and NEI 12-13, and that the NRC staff observed the closure review of open PRA F&Os in November 2016. However, NEI provided the draft version of Appendix X to the NRC on February 8, 2016, and the final version on February 21, 2017. The final version of Appendix X included two substantive changes not addressed in the draft version. These changes included provisions for:

- A documented licensee justification and an F&O closure team assessment that supports the classification of each F&O finding resolution as either a PRA upgrade or PRA maintenance update, as defined in the ASME/ANS RA-Sa-2009 PRA Standard endorsed by RG 1.200, Revision 2; and

Enclosure

- The independent assessment (IA) team's confirmation that the aspects of the underlying supporting requirements (SRs) that were previously not met, or met at Capability Category I (CC-I), are now met or met at CC-II.

Because the F&O closure process described in Appendix X relies on an onsite review, there are no provisions for a "gap assessment" in order to update the results of a review performed before February 21, 2017, to the final guidance.

The May 3, 2017, NRC letter that accepted the F&O closure process references an NRC Staff Memorandum (ADAMS Accession No. ML17095A252), which includes the NRC staff observations of the Peach Bottom F&O closure process, including the observation of the F&O closure final report after it was completed. As indicated in the NRC memorandum, neither the licensee nor the IA team conducted a systematic evaluation or provided a documented justification that supported the classification of each F&O resolution as either a PRA upgrade or PRA maintenance update. In addition, the NRC memorandum noted that in most cases, the IA team did not revisit the original text of the SRs in ASME/ANS RA-Sa-2009, but instead only addressed the text provided by the licensee that described the F&O and the reported resolution.

The NRC staff has determined that the following information is required in order for the licensee's LAR to be accepted as a risk-informed LAR:

- a. A description of the evaluation performed that led to the conclusion in the LAR that the "closed findings were reviewed and closed using the process documented in Appendix X...as accepted by NRC in the staff memorandum dated May 3, 2017."
- b. The licensee's documented justification and the IA team's documented assessment supporting the classification of each F&O finding resolution for closed F&Os as either a PRA upgrade or PRA maintenance update, as defined in the ASME/ANS RA-Sa-2009 PRA Standard endorsed by RG 1.200, Revision 2.
- c. The IA team's confirmation that for the closed F&Os, the aspects of the underlying SRs in ASME/ANS RA-Sa-2009 that were previously not met, or met at CC-I, are now met or met at CC-II.

The information requested above was discussed in a conference call, between the Exelon staff and the NRC staff, on October 10, 2017. During this call, for item "b" above, it was agreed that the licensee would document this information and make it available for NRC staff audit after it is completed. Exelon's response to this supplemental information request should acknowledge this path forward and state the date when the information will be available.

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**ADAMS Accession No.: ML17272B016**

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