

10 CFR 50.90
10 CFR 50.69

October 24, 2017

U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
ATTN: Document Control Desk

Peach Bottom Atomic Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-44 and DPR-56
NRC Docket Nos. 50-277 and 50-278

Subject: Supplement to Application to Adopt 10 CFR 50.69, Risk-Informed
Categorization and Treatment of Structures, Systems, and Components for
Nuclear Power Reactors

- References:
1. Letter from James Barstow (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission – *"Application to Adopt 10 CFR 50.69, Risk-informed categorization and treatment of structures, systems, and components for nuclear power reactors,"* dated August 30, 2017 (ADAMS Accession No. ML17243A014).
 2. Letter from Richard B. Ennis (U.S. Nuclear Regulatory Commission) to Bryan C. Hanson (Exelon Generation Company, LLC), "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)," dated October 10, 2017 (ADAMS Accession No. ML17272B016).

In Reference 1, Exelon Generation Company, LLC (Exelon) requested an amendment to the Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, respectively. The proposed amendment would modify the licensing basis by the addition of a license condition to allow for the implementation of the provisions of Title 10 of the Code of Federal Regulations (10 CFR), Part 50.69, *"Risk-informed categorization and treatment of structures, systems, and components for nuclear power reactors."*

In Reference 2, the NRC requested that Exelon provide supplemental information by October 27, 2017, to support the acceptance review of the license amendment request. The attachment to this letter provides a restatement of the NRC questions followed by our responses.

Exelon has reviewed the information supporting a finding of no significant hazards consideration, and the environmental consideration, that were previously provided to the NRC in the Enclosure of the Reference 1 letter. Exelon has concluded that the information provided in this response does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92. In addition, Exelon has concluded that the information in this response does not affect the bases for concluding that neither an environmental impact statement nor an environmental assessment needs to be prepared in connection with the proposed amendment.

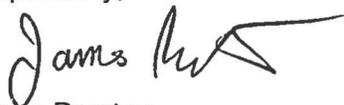
In accordance with 10 CFR 50.91, "*Notice for public comment; State consultation,*" paragraph (b), Exelon is notifying the Commonwealth of Pennsylvania of this supplement to the application for license amendment by transmitting a copy of this letter and its attachment to the designated State Official.

This letter contains no regulatory commitments.

If you should have any questions regarding this submittal, please contact Richard Gropp at 610-765-5557.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 24th day of October 2017.

Respectfully,



James Barstow
Director - Licensing and Regulatory Affairs
Exelon Generation Company, LLC

Attachment

cc: USNRC Region I, Regional Administrator
USNRC Project Manager, Peach Bottom
USNRC Senior Resident Inspector, Peach Bottom
Director, Bureau of Radiation Protection – Pennsylvania Department
of Environmental Protection
R.R. Janati, Pennsylvania Bureau of Radiation Protection
S.T. Gray, State of Maryland

ATTACHMENT

License Amendment Request Supplement

**Peach Bottom Atomic Power Station, Units 2 and 3
NRC Docket Nos. 50-277 and 50-278**

**Application to Adopt 10 CFR 50.69, Risk-Informed Categorization and Treatment
of Structures, Systems, and Components for Nuclear Power Reactors**

Attachment
License Amendment Request Supplement
Application to Adopt 10 CFR 50.69

By letter dated August 30, 2017, Exelon Generation Company, LLC (Exelon) requested an amendment to the Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, respectively. The proposed amendment would modify the licensing basis by the addition of a license condition to allow for the implementation of the provisions of Title 10 of the Code of Federal Regulations (10 CFR), Part 50.69, "*Risk-informed categorization and treatment of structures, systems, and components for nuclear power reactors.*"

By letter dated October 10, 2017, the U.S. Nuclear Regulatory Commission (NRC) requested that Exelon provide supplemental information by October 27, 2017, to support the acceptance review of the License Amendment Request (LAR). The information requested was discussed during a conference call on October 10, 2017, between Exelon and NRC representatives. During this call, for Item "b" below, it was agreed that Exelon would document the information requested for Item "b" and make it available for NRC audit after it is completed. The NRC indicated that Exelon's response to this supplemental information request should acknowledge this path forward and state the date when the information will be available.

The NRC has determined that the information described below is required in order for the LAR to be accepted as a risk-informed LAR. Each NRC question is restated followed by our response.

- 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."*

Response

As the NRC has noted, the original Facts and Observations (F&O) finding closure technical review conducted for PBAPS was a pilot for the F&O closure review process. The original review was thus conducted before the final version of the Nuclear Energy Institute (NEI) Appendix X guidance was completed, and before the NRC issued its letter formally accepting the process. The PBAPS F&O finding closure technical review considered and implemented insights from an F&O closure technical review for an earlier pilot and implemented other process enhancements. However, the final report from the technical closure review team, which was made available to NRC for examination, did not address certain aspects of the final NEI Appendix X guidance which was accepted by the NRC. Therefore, Exelon requested that the review team retrospectively address these aspects and make any additional clarification statements regarding compliance with the current guidance, and issue a revision to the F&O finding closure technical review report (i.e., "*Peach Bottom PRA Finding Level Fact & Observation Technical Review & Focused-Scope Peer Review,*" Revision 1, dated October 2017).

The revised PBAPS F&O finding closure technical review report, signed by all members of the closure review team, clarifies the following three (3) points in response to the NRC's request:

1. *The final guidance requires that the utility perform "A written assessment and justification of whether each finding constitutes a PRA upgrade, maintenance update, or other, as defined in the ASME/ANS PRA Standard" and that "The independent assessment team will also review the upgrade assessment conducted as part of the host utility's self-assessment, and will recommend any additional concurrent focused-scope peer reviews if warranted by this review."*

The utility [Exelon] did perform this assessment, and did identify an upgrade. The independent assessment team did, in the course of their review, consider whether any other of the finding resolutions should have been considered an upgrade, and in at least one case had a lengthy discussion regarding one of the resolutions. Ultimately, the team concurred with the utility [Exelon] assessment that there were no other upgrades.

2. *The final guidance states that "Should an independent assessment team note the incorporation of a 'new method' into a licensee's PRA, they will not review the new method itself, and will not close relevant findings associated with the 'new method.'" The NRC letter provides further that "A PRA method is new if it has not been reviewed by the NRC staff. There are two ways new methods are considered accepted by the NRC staff: (1) they have been explicitly accepted by the NRC (i.e., they have been reviewed, and the acceptance has been documented in a safety evaluation, frequently-asked-questions, or other publicly available organizational endorsement), or (2) they have been implicitly accepted by the NRC (i.e., there has been no documented denial) in multiple risk-informed licensing applications."*

The independent assessment team did consider whether any finding resolution implemented a new method. The criterion we [independent assessment team] applied to whether something was a new method is consistent with the NRC's letter. We [independent assessment team] concluded that none of the resolutions, including the resolution that was considered an upgrade, constituted a new method.

3. *The final guidance states that "Additionally, the team will review the SR to ensure that the aspects of the underlying SR that were previously not met, or met at CCI, are now met, or met at CCII."*

The assessment team, during its review, clearly had (and implemented) criteria for determining that CC-II [Capability Category] was achieved by resolution of the findings. This is already discussed in Section 2.1.4 of this report. However, to add further clarity, the independent assessment team did consider whether the resolution of the finding met the requirements of the SR [Supporting Requirement]. In particular, where the Exelon approach to the resolution was different than proposed by the original peer review team we [independent assessment team] went back to the underlying SR to assure that the resolution addressed the description and basis of the finding adequately to meet the SR at CC-II.

In addition to the review team's clarification as noted above, Exelon has revised the documentation of the PBAPS Probabilistic Risk Assessment (PRA) technical adequacy evaluation to explicitly note the basis for whether or not each finding resolution represents PRA maintenance or PRA upgrade. Together, the revised F&O finding closure technical review report and the revised PRA technical adequacy evaluation support Exelon's conclusion 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. Both the F&O finding closure technical review report and the revised PRA technical adequacy evaluation are available for examination by the NRC.

- 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.*

Response

Please see response to question (a) above. The revised PBAPS F&O finding closure review report and the revised PRA technical adequacy evaluation document this information. Exelon agreed to make these documents available for NRC audit in support of its review of the PBAPS 50.69 LAR. These documents are now available for NRC audit as of the date of this submittal.

- 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.*

Response

Please see response to question (a) above under item 3. The discussion of the F&O finding closure review team's revised statement confirms that the process associated with the aspects of the underlying SRs in ASME/ANS RA-Sa-2009 was followed, as documented in the original closure review report.