



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

January 9, 2018

Mr. Bryan C. Hanson
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

**SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 –
REGULATORY AUDIT PLAN REGARDING LICENSE AMENDMENT
REQUEST TO ADOPT 10 CFR 50.69 (CAC NOS. MG0181 AND MG0182;
EPID L-2017-LLA-0281)**

Dear Mr. Hanson:

By letter dated August 30, 2017, as supplemented by letter dated October 24, 2017 (Agencywide Documents Access and Management System Accession Nos. ML17243A014 and ML17297B521, respectively), Exelon Generation Company, LLC (the licensee) submitted a license amendment request to adopt Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.69, "Risk-informed categorization and treatment of structures, systems and components for nuclear power reactors," for the Peach Bottom Atomic Power Station, Units 2 and 3.

The proposed license amendment would modify the licensing basis by the addition of a license condition to allow for the implementation of the provisions of 10 CFR 50.69, which allow adjustment of the scope of equipment subject to special treatment controls (e.g., quality assurance, testing, inspection, condition monitoring, assessment, and evaluation).

The U.S. Nuclear Regulatory Commission staff will be conducting an onsite audit January 31, 2018, to February 1, 2018, at the Exelon Generation Company, LLC offices, 300 Exelon Way, Kennett Square, PA 19348. The regulatory audit plan is enclosed with this letter.

B. Hanson

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If you have any questions regarding this matter, please contact me at 301-415-2328 or by e-mail to Jennifer.Tobin@nrc.gov.

Sincerely,

A handwritten signature in black ink, reading "Jennifer Tobin". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

Jennifer Tobin, Project Manager
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

Enclosure:
Regulatory Audit Plan

cc w/Enclosure: Distribution via Listserv

AUDIT PLAN FOR JANUARY 31, 2018, TO FEBRUARY 1, 2018
PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3
REGULATORY AUDIT IN SUPPORT OF EXELON GENERATION COMPANY, LLC'S
LICENSE AMENDMENT REQUEST TO ADOPT 10 CFR 50.69
DOCKET NOS. 50-227 AND 50-278

1.0 BACKGROUND

By letter dated August 30, 2017, as supplemented by letter dated October 24, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML17243A014 and ML17297B521, respectively), Exelon Generation Company, LLC (Exelon) submitted a license amendment request to adopt Title 10 of the *Code of Federal Regulations* (10 CFR) 50.69, "Risk-informed categorization and treatment of structures, systems and components for nuclear power reactors," for the Peach Bottom Atomic Power Station, Units 2 and 3 (Peach Bottom). The proposed license amendments would modify the licensing basis by the addition of a license condition to allow for the implementation of the provisions of 10 CFR 50.69, which allow adjustment of the scope of equipment subject to special treatment controls (e.g., quality assurance, testing, inspection, condition monitoring, assessment, and evaluation).

This voluntary risk-informed alternative rule allows power reactor licensees and license applicants to apply a risk-informed categorization process to categorize structures, systems, and components (SSCs) based on their safety significance. The final rule was published in the *Federal Register* on November 22, 2004 (69 FR 68008). The U.S. Nuclear Regulatory Commission (NRC) staff issued Regulatory Guide (RG) 1.201, Revision 1, "Guidelines for Categorizing Structures, Systems, and Components in Nuclear Power Plants According to Their Safety Significance," on April 28, 2006 (ADAMS Accession No. ML061090627).

The NRC staff's review of the application has commenced in accordance with the Office of Nuclear Reactor Regulation's (NRR's) Office Instruction LIC-101, "License Amendment Review Procedures." The NRC staff has determined that a regulatory audit of the Exelon 10 CFR 50.69 application should be conducted in accordance with NRR Office Instruction LIC-111, "Regulatory Audits," for the staff to gain a better understanding of the licensee's proposed risk-informed categorization process.

A regulatory audit is a planned license or regulation-related activity that includes the examination and evaluation of primarily non-docketed information. A regulatory audit is conducted with the intent to gain understanding, to verify information and/or to identify information that will require docketing to support the basis of a licensing or regulatory decision. Performing a regulatory audit of the licensee's information is expected to assist the staff in efficiently conducting its review or gain insights on the licensee's processes or procedures. Information that the NRC staff relies upon to make the safety determination must be submitted on the docket. However, the NRC staff may review supporting information retained as records under 10 CFR 50.71 and/or 10 CFR 54.37, which although not required to be submitted as part of the licensing action, would help the staff better understand the licensee's submitted information.

Enclosure

The objectives of this regulatory audit are to determine the technical adequacy of the application by:

- verifying conformance of categorization process with NRC-endorsed guidance and the licensee's implementation of the endorsed categorization process;
- validating probabilistic risk assessment (PRA) quality is adequate for use in the application;
- confirming that non-PRA methods used for evaluating the risk from external hazards are consistent with those allowed in Nuclear Energy Institute (NEI) 00-04, Revision 0, "10 CFR 50.69 SSC Categorization Guideline," dated July 2005 (ADAMS Accession No. ML052900163), and consider the current as-built, as-operated plant;
- observing the results of the Integrated Decisionmaking Panel; and
- identifying new information that is needed in order for staff to reach a licensing or regulatory decision in discussing audit questions.

2.0 REGULATORY AUDIT BASIS

The basis of this audit is Exelon's application dated August 30, 2017, as supplemented by letter dated October 24, 2017; 10 CFR 50.69; RG 1.201, Revision 1; and NRC Inspection Manual Procedure 37060, "10 CFR 50.69 Risk-Informed Categorization and Treatment of Structures, Systems, and Components Inspection" (ADAMS Accession No. ML111310693). RG 1.200, Revision 2, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," March 2009 (ADAMS Accession No. ML090410014), provides more regulatory information that will be used to support the audit.

3.0 REGULATORY AUDIT SCOPE OR METHOD

The staff will verify conformance of the categorization process with NRC-endorsed guidance and confirm that authorization of work for any non-PRA methods proposed for use in the categorization process is consistent with authorization of work allowed in NEI 00-04, as endorsed, with clarifications in RG 1.201, Revision 1. The team plans to discuss audit questions and identify the need for additional information or clarification.

4.0 INFORMATION AND OTHER MATERIAL NECESSARY FOR THE AUDIT

The NRC audit team will require access to licensee personnel knowledgeable in all aspects of the Exelon 10 CFR 50.69 application. At a minimum, a hard copy and electronic copy of the following documentation should be available to the audit team on the first day of the audit. In addition, presentations and specific discussion topics may be requested prior to the audit.

Documents

- Internal events and fire PRA documentation models should be available on computer with licensee support
- Internal events and fire PRA peer review reports and fact and observation (F&O) closure reports

- Documentation of changes to the PRA models with justification of upgrades/updates
- Peach Bottom 10 CFR 50.69 license amendment request, as supplemented
- 10 CFR 50.69 draft procedures
- Documentation of categorization results

Presentations

- NRC staff observes the Integrated Decisionmaking Panel deliberations

Discussions

- Discussions of audit questions related to:
 - F&Os
 - PRA updates/upgrades, focused-scope peer reviews, and F&O closure
 - Discussion of the Integrated Decisionmaking Panel

5.0 TEAM AND ASSIGNMENTS

The audit will be conducted by NRC staff from NRR, Division of Risk Assessment, PRA Licensing Branch, and NRC contractors from the Pacific Northwest National Laboratories (PNNL) in support of the technical audit team members. Staff knowledgeable in 10 CFR 50.69 and risk-informed licensing reviews will comprise the audit team. Observers at the audit may include NRR technical reviewers and project managers.

The NRC audit team leader will be Leslie Fields, and the NRC technical lead will be Michael Levine (PRA). The audit team leader will conduct daily briefings on the status of the review and coordinate audit activities while on site. The tables below show (1) audit milestones and schedule and (2) planned audit team composition and their assigned areas for review during the audit.

Audit Milestones and Schedule		
Activity	Time Frame	Comments
Clarification Call	01/15 or later	Teleconference from NRC headquarters to provide clarification of audit questions.
Onsite Audit Kickoff Meeting	01/31/2018	NRC will present a brief team introduction and discuss the scope of the audit. The licensee should introduce team members and give logistics for the meeting.
End of Day Summary Briefings	01/31/2018-02/01/2018	Meet with the licensee to provide a summary of any significant findings and requests for additional assistance.
Provide Rooms for Focused Topic Discussions	01/31/2018-02/01/2018	Facilitate discussions between site and staff technical areas. Provide one or two breakout areas, if possible, for smaller discussions.
Onsite Audit Exit Meeting	02/01/2018	NRC staff will hold a brief exit meeting with licensee staff to conclude audit activities.
Audit Summary (see Section 8.0)	30 days after exit	To document the audit (30 business days).

Regulatory Audit Plan Review Areas and Assignments			
		Lead	Support
1	Categorization Process	Team	Team
2	PRA Technical Adequacy	M. Levine	PNNL
2.a	Peer Reviews	M. Levine	PNNL
2.b	Facts and Observations	M. Levine	PNNL
2.c	PRA Updates/Upgrades	M. Levine	PNNL
3	External Hazards	M. Levine	PNNL
4	Integrated Decisionmaking Panel	M. Levine	PNNL
5	Documentation, Configuration Control, and Quality	L. Fields	Team

6.0 LOGISTICS

This regulatory audit will begin January 31, 2018, and will last approximately 2 days. The NRC will schedule a conference call 1 to 2 weeks prior to the audit to discuss the details of the generic audit plan. The dates in the milestone chart are subject to change based on mutual agreement between the licensee and the NRC. An entrance meeting for this audit will be held on the first day at 1:00 p.m., and an exit meeting will be held the final day at 4:00 p.m. (or earlier or later) based on a mutually agreed upon time. The NRC audit team leader will provide daily progress briefings to licensee personnel on the first and second day of the audit.

The audit will take place at a location agreed upon by the licensee and NRC audit leader where (1) the necessary reference material and (2) appropriate Exelon staff should be available to support the review. Visitor access will be requested for the entire audit team. The NRC recommends that security paperwork and processing be handled prior to the first day of the audit, if possible.

7.0 SPECIAL REQUESTS

The regulatory audit team will require the following to support the regulatory audit:

- Two computers with internet access and printing capability in the NRC room, access to the site portal, and wired or wireless guest internet access for all team members.
- One main conference room with one additional private area for conference calling capability should be made available. The main NRC conference room should be set up for six to eight NRC staff and contractors.
- Access to licensee personnel knowledgeable in the categorization process, plant design, plant operation, and plant PRA. In addition, Exelon staff who participated in preparing the license amendment request submittal should be available for discussion.

8.0 DELIVERABLES

A regulatory audit summary will be issued within approximately 30 business days after the completion of the audit. The summary will use the guidance of NRR Office Instruction LIC-111 for content. Audit questions will likely be sent prior to the audit. After the audit, formal requests for additional information will be sent to the licensee from NRR's Division of Operator Licensing. The audit summary will be placed in ADAMS.

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 EPID L-2017-LLA-0281) DATED JANUARY 9, 2018

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 FArner, R-I
 MBiro, NRR

ADAMS Accession No.: ML18005A077

*by e-mail

**by memorandum

OFFICE	NRR/DORL/LPL1/PM*	NRR/DORL/LPL1/LA	NRR/DRA/APLA/BC**
NAME	JTobin	LRonewicz	SRosenberg
DATE	01/05/2018	01/05/2018	12/27/2017
OFFICE	NRR/DORL/LPL1/BC	NRR/DORL/LPL1/PM	
NAME	JDanna (BVenkataraman for)	JTobin (w/edits)	
DATE	01/05/2018	01/09/2018	

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