



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

August 31, 2022

Mr. David P. Rhoades
Senior Vice President
Constellation Energy Generation, LLC
President and Chief Nuclear Officer
Constellation Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT – REGULATORY AUDIT SUMMARY REGARDING LICENSE AMENDMENT REQUESTS TO ADOPT 10 CFR 50.69, “RISK-INFORMED CATEGORIZATION AND TREATMENT OF STRUCTURES, SYSTEMS, AND COMPONENTS FOR NUCLEAR POWER PLANTS” AND TO PERMIT THE USE OF RISK-INFORMED COMPLETION TIMES IN ACCORDANCE WITH TSTF-505, REVISION 2, “PROVIDE RISK-INFORMED EXTENDED COMPLETION TIMES - RITSTF INITIATIVE 4B” (EPID L-2021-LLA-0142 AND L-2021-LLA-0143)

Dear Mr. Rhoades:

By letters dated July 30, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML21211A053 and ML21211A078), Exelon Generation Company, LLC (Exelon) submitted two license amendment requests (LARs) for James A. FitzPatrick Nuclear Power Plant. On February 1, 2022 (ML22032A333), Exelon Generation Company, LLC was renamed Constellation Energy Generation, LLC (the licensee). In its LARs, the licensee requested to amend license DPR-59 to adopt Technical Specifications Task Force (TSTF) Traveler 505 (TSTF-505), “Provide Risk-informed Extended Completion Times, RITSTF Initiative 4b,” and the provisions of 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.”

The U.S. Nuclear Regulatory Commission (NRC) staff reviewed the licensee’s LARs and determined that a regulatory audit would assist in the timely completion of the LAR review. By letter dated October 22, 2021 (ML21285A149), the NRC staff issued its audit plan. The plan consisted of an in-office audit and a remote audit, which occurred during the week of January 18, 2022.

As a result of the audit, on March 4, 2022 (ML22063A135), the licensee submitted a supplement to the LARs to respond to most of the audit questions posed by the NRC staff during the virtual audit. To address the remaining questions, the NRC issued a request for additional information, which the licensee responded to on June 16, 2022 (ML22167A071).

The audit summary for the combined remote audit is enclosed.

D. Rhoades

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If you have any questions, please contact me by telephone at 301-415-2048 or by e-mail to Justin.Poole@nrc.gov.

Sincerely,

/RA/

Justin C. Poole, Project Manager
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-333

Enclosure:
Regulatory Audit Summary

cc: Listserv

COMBINED REGULATORY AUDIT SUMMARY
LICENSE AMENDMENT REQUESTS REGARDING RISK-INFORMED
COMPLETION TIMES AND ADOPTION OF 10 CFR 50.69, "RISK-INFORMED
CATEGORIZATION AND TREATMENT OF STRUCTURES, SYSTEMS, AND
COMPONENTS FOR NUCLEAR POWER PLANTS"
CONSTELLATION FITZPATRICK, LLC
DOCKET NO. 50-333

1.0 BACKGROUND

A regulatory audit is a planned license or regulation-related activity that includes the examination and evaluation of primarily non-docketed information. The audit is conducted with the intent to gain understanding, to verify information, and to identify information that will require docketing to support the basis of a licensing or regulatory decision.

By letters dated July 30, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML21211A053 and ML21211A078), Exelon Generation Company, LLC (Exelon) submitted two license amendment requests (LARs) for James A. FitzPatrick Nuclear Power Plant. On February 1, 2022 (ML22032A333), Exelon Generation Company, LLC was renamed Constellation Energy Generation, LLC (the licensee). In its LARs, the licensee requested to amend license DPR-59 to adopt Technical Specifications Task Force (TSTF) Traveler 505 (TSTF-505), "Provide Risk-informed Extended Completion Times, RITSTF Initiative 4b," and the provisions of 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."

The NRC staff performed a preliminary review of the licensee's LARs and determined that a regulatory audit would assist in the timely completion of the reviews. The regulatory audit was performed consistent with NRC Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-111, "Regulatory Audits," dated December 29, 2008 (ML082900195). The NRC staff conducted a combined regulatory audit that consisted of an electronic and remote audit, which occurred during the week of January 18, 2022. The initial audit plans consisting of "In-office Audit" and "Site Audit" were provided to the licensee on October 22, 2021 (ML21285A149), and included a list of information that the licensee needed to upload on to the ePortals with access control, to the audit team members.

The NRC staff reviewed documents and held discussions with members of the licensee regarding the LARs under staff review. As a result of the audit, on March 4, 2022 (ML22063A135), the licensee submitted a supplement to the LARs to respond to most of the audit questions posed by the NRC staff during the virtual audit. To address the remaining questions, the NRC issued a request for additional information, which the licensee responded to on June 16, 2022 (ML22167A071).

2.0 AUDIT ACTIVITIES AND OBSERVATIONS

2.1 In-Office and Remote Audits

The remote audit was conducted using video and teleconferencing capabilities. The purpose of the audit was to (1) gain a better understanding of the information in the LARs to support the staff's review, and (2) identify any information that would be required from the licensee to be provided on-the-docket for the NRC staff to render a staff finding to support the safety evaluation.

The NRC staff reviewed documents identified as audit information needs in the audit plan. These documents were accessed through the electronic reading room established by the licensee. They were used to prepare for the virtual meeting phase of the audit and to develop specific questions to be addressed.

During the virtual meeting, the licensee presented prepared material to address questions the NRC staff had transmitted in advance. After each presentation, the audit team held detailed discussions with the licensee and in some cases, reviewed additional documentation in the electronic reading room. The NRC staff assesses the information gathered in this way to determine whether it should be submitted on the docket (either in a supplement to the amendment request or in response to a request for additional information that the staff would issue after the exit interview). Supplemental submittals and staff requests for additional information are outside the scope of the audit.

During the virtual meeting, there was an entrance interview, presentations prepared by the licensee on technical topics associated with the § 50.69 and TSTF-505 LARs, discussions of the audit questions prepared by the auditors, written and verbal responses by the licensee; ad hoc sessions on technical issues of interest to the NRC staff, and the inspection of additional records (e.g., probable risk assessment-related reports). At the end of the virtual meeting, the NRC staff conducted a brief exit interview reporting preliminary observations.

AUDIT SUMMARY

From discussions, the NRC staff gathered information on various elements of the technical adequacy of the probable risk assessments (PRAs) and the programmatic elements of the risk-informed applications that are important in the staff's review. The staff also observed a demonstration of the tool the licensee plans to use in its configuration risk management program.

On January 20, 2022, the NRC staff and the licensee concluded the virtual audit meeting. The NRC staff summarized the information identified during the audit that would need to be docketed and discussed near-term milestones in the review of the LARs.

3.0 RESULTS OF THE AUDIT

During the in-office and remote audits, the NRC staff did not make any regulatory decisions regarding the LARs under staff review. The audits identified information that the licensee needed to provide to the NRC "on-the-docket" and identified information that was not needed to render a staff finding, thus obviating the need for some RAIs.

4.0 AUDIT PARTICIPANTS

Licensee and their Contractors:

Vince Anderson
Eric Deeken
Caitlin Gainey
Bob Graham
Jessie Hodge
Bob Kirchner
James Landale
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NRC and their Contractors:

Steven Alferink
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James Danna
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Chuck Moulton
Malcolm Patterson
Justin Poole
Bob Pascarelli
Andrea Russell
Steven Short
Mark Wilk
Wesley Wu
Steve Wyman
Bob Vettori

5.0 LIST OF DOCUMENTS REVIEWED

The following documents were reviewed during the audit:

1. James A. FitzPatrick Nuclear Power Plant PRA Peer Review Report, April 2010.
2. James A. FitzPatrick Nuclear Power Plant F&O Report, April 2020.
3. James A. FitzPatrick Nuclear Power Plant Focused Peer Review Report, April 2020.
4. James A. FitzPatrick Nuclear Power Plant Fire PRA Peer Review Report, April 2020.
5. James A. FitzPatrick Nuclear Power Plant FPIE & Fire PRA F&O Independent Assessment, August 2020.
6. James A. FitzPatrick Nuclear Power Plant PRA F&O Independent Assessment, April 2021.
7. James A. FitzPatrick Nuclear Power Plant Fire PRA Summary & Quantification Notebook, JF-PRA-021.11, Revision 3, March 2021.
8. ER-AA-600-1015, FPIE PRA MODEL UPDATE, Revision 20.
9. ER-AA-600-1061 Fire PRA Model Update and Control, Revision 7.
10. James A. FitzPatrick Nuclear Power Plant Fire PRA Uncertainty and Sensitivity Notebook, JF-PRA-021.12, Revision 2.
11. JF-PRA-013, James A. FitzPatrick Nuclear Power Plant PRA Summary Document Notebook, Revision 0.
12. JF-PRA-014, James A. FitzPatrick Nuclear Power Plant Quantification Notebook, Revision 2.
13. JF-PRA-015, James A. FitzPatrick Nuclear Power Plant Level 2 Analysis, Revision 0.
14. JF-MISC-021, James A. FitzPatrick Nuclear Power Plant Assessment of Key Assumptions and Source of Uncertainty, Revision 0.
15. JAF-RPT-MISC-02211, James A. FitzPatrick Nuclear Power Plant Individual Plant Examination of External Events, Revision 0.
16. NRC Letter, James A. FitzPatrick Nuclear Power Plant Individual Plant Examination of External Events Safety Evaluation. September 21, 2000.
17. James A. FitzPatrick Nuclear Power Plant AOP-13, Severe Weather, Revision 38.
18. JF-ASM-002, JAF TMRE Model Development and Quantification, Revision 0.
19. JF-PRA-005.33, James A. FitzPatrick Nuclear Power Plant Portable Equipment System Notebook, Revision 0.
20. JAFP-15-0036, Flooding Hazard Reevaluation Report.
21. Exelon Fleet Procedure OP-AA-201-012-1001, "Operations On-Line Fire Risk Management."
22. Exelon Fleet Procedure OP-AA-108-118, "Risk Informed Completion Time."
23. Exelon Fleet Procedure WC-AA-101-1006, "On-Line Risk Management and Assessment."

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