



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

February 23, 2021

Mr. James Barstow  
Vice President, Nuclear Regulatory  
Affairs and Support Services  
Tennessee Valley Authority  
1101 Market Street, LP 4A-C  
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3 – REGULATORY  
AUDIT SUMMARY RELATED TO REQUEST TO IMPLEMENT 10 CFR 50.69  
RISK-INFORMED CATEGORIZATION AND TREATMENT FOR STRUCTURES,  
SYSTEMS AND COMPONENTS (EPID L-2020-LLA-0162)

Dear Mr. Barstow:

By letter dated July 17, 2020, Tennessee Valley Authority (TVA) submitted a license amendment request that would allow for the voluntary adoption of the requirements of Title 10 of the *Code of Federal Regulations*, Section 50.69, "Risk-informed categorization and treatment of structures, systems and components for nuclear power reactors," at Browns Ferry Nuclear Plant, Units 1, 2, and 3.

To enhance the review of TVA's request, the U.S. Nuclear Regulatory Commission (NRC) staff conducted an audit of supporting documents from December 7, 2020, through January 13, 2021. The NRC staff audited the requested documents to confirm certain information relied upon in the license amendment request. A summary of the regulatory audit is enclosed. The NRC staff did not identify any significant issues during the audit. However, the staff did identify the need for additional information related to the topic of the audit. The NRC staff's request for additional information will be transmitted via separate correspondence at a future date.

Sincerely,

/RA/

Michael J. Wentzel, Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260, and 50-296

Enclosure:  
Regulatory Audit Summary

cc: Listserv



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

REGULATORY AUDIT SUMMARY

LICENSE AMENDMENT REQUEST TO ADOPT THE REQUIREMENTS OF 10 CFR 50.69,

“RISK-INFORMED CATEGORIZATION AND TREATMENT OF STRUCTURES, SYSTEMS,

AND COMPONENTS”

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3

DOCKET NOS. 50-259, 50-260, AND 50-296

1.0 BACKGROUND

A regulatory audit is an activity undertaken by the U.S. Nuclear Regulatory Commission (NRC) staff to examine and evaluate licensee information with the intent to gain an understanding of, verify, or identify information that will require docketing to support the basis of a licensing or regulatory decision.

By application dated July 17, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20199M373), Tennessee Valley Authority (TVA, the licensee) submitted a license amendment request (LAR) for Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68 for Browns Ferry Nuclear Plant, Units 1, 2, and 3 (Browns Ferry), respectively. The proposed amendments would allow for the voluntary implementation of the provisions of Section 50.69 of Title 10 of the *Code of Federal Regulations* (10 CFR), “Risk-Informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors,” at Browns Ferry.

The NRC staff performed a preliminary review of the LAR and determined that a regulatory audit would assist in the timely completion of the review. The regulatory audit was performed consistent with the NRC Office of Nuclear Reactor Regulation Office Instruction LIC-111, “Regulatory Audits,” Revision 1, dated October 31, 2019 (ADAMS Accession No. ML19226A274). The NRC staff conducted a regulatory audit that consisted of a remote audit, including discussions with the licensee, from December 7, 2020, through January 13, 2021. The audit plan was initially provided to TVA on December 2, 2020 (ADAMS Accession No. ML20337A439). The NRC staff issued a revision to the audit plan on January 7, 2021 (ADAMS Accession No. ML21007A164). The list of documents uploaded by the licensee in response to the NRC staff’s request and examined by the audit team is provided in Section 5.0.

The NRC staff reviewed documents and held discussions with members of TVA on January 12 and 13, 2021, regarding the LAR under staff review. The collective results of the

Enclosure

regulatory audit are being used by the NRC staff to finalize requests for additional information (RAIs), which will be issued to TVA at a future date.

## 2.0 AUDIT ACTIVITIES AND OBSERVATIONS

The remote audit was conducted using an online portal and teleconferencing capabilities. The purpose of the audit was to (1) confirm internal licensee information that supports statements made in the LAR, and (2) determine whether the information included in the documents is necessary to be submitted to support a safety conclusion.

Discussions on the topics identified in the attachment of Revision 1 of the audit plan were held with the licensee during audit calls conducted on January 12 and 13, 2021. The NRC staff assessed the information provided during the audit to determine whether additional information would be needed to support a regulatory finding, and therefore, would need to be submitted for review.

## 3.0 RESULTS OF THE AUDIT

During the audit, the NRC staff confirmed information that supported statements made in the LAR. However, the staff identified additional information that is needed to support the staff's regulatory findings. Therefore, subsequent to the audit's conclusion, an RAI was sent to the licensee on November 17, 2020 (ADAMS Accession No. ML20322A441).

## 4.0 AUDIT PARTICIPANTS

<b>NRC and Contractor</b>	<b>TVA</b>
Mihaela Biro	Brad Dolan
Garill Coles	Hongbing Jiang
Jigar Patel	Jacob Johnson
Stacey Rosenberg	Daniel Kearnaghan
Shilp Vasavada	Gerry Kindred
Michael Wentzel	Tracy Orf
De Wu	Leslie Vandiver
	William Victor

## 5.0 LIST OF DOCUMENTS AND MATERIALS REVIEWED DURING THE AUDIT

- TVA Report, "Application for Technical Specifications Change Regarding Risk-Informed Justification for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program," (BFN-TS-516), dated March 27, 2020.
- TVA Letter, from Polickoski, James T., to the U.S. Nuclear Regulatory Commission (NRC), "Response to Request for Additional Information Regarding Application for Technical Specification Change Regarding Risk-Informed Justification for Relocation of the Specific Surveillance Frequency Requirements to License Controlled Program," (BFN-TS-516) (EPID L-2020-LLA-0058), dated December 21, 2020.

TVA Letter, from Polickoski, James T., to the NRC, "Partial response to NRC Request for Additional Information Regarding Watts Bar Nuclear Plant, Units 1 and 2, Application to Adopt 10 CFR 50.69, 'Risk-informed Categorization and Treatment of Structures, Systems, and Components for Nuclear Power Reactors,'" (WBM-TS-17-24), (EPID L-2018-LLA-0493).

- TVA Report, BFN-FPRA-FSPRA-RPT-01, "Browns Ferry Nuclear Plant, Fire PRA Focused-Scope Peer Review Report," dated June 15, 2015.
- TVA Report, P0132150002-5175, "Browns Ferry Nuclear Units 1, 2, 3, Internal Events PRA resolution Focused-Scope Peer Review," dated August 31, 2015.
- Boiling Water Reactor (BWR) Owners Group Report, "Browns Ferry Nuclear Plant, Seismic PRA Peer Review Report Using ASME/ANS PRA Standard Requirements," dated June 2019.
- Boiling Water Reactor (BWR) Owners Group Report, "Browns Ferry Units 1, 2, 3, PRA Peer Review Report Using ASME/ANS PRA Standard Requirements," dated August 2009.
- Boiling Water Reactor (BWR) Owners Group Report, "Browns Ferry Nuclear Plant, Fire PRA Peer Review Report Using ASME/ANS PRA Standard Requirements," dated October 2012.
- Jensen Hughes Report, 06069-RPT-01, "SPRA F&O Closure Independent Assessment, Browns Ferry Nuclear Plant (1, 2, & 3)," dated November 07, 2019.
- ERIN - Jensen Hughes Report, B45 151204 002, "Browns Ferry Nuclear Units 1, 2, 3 PRA Focused Scope Peer Review Final Report Transmittal – P00132150002-5175," dated August 31, 2015.
- ABS Consulting Report, R-2205685-1797, "Internal Flood PRA Peer Review for Browns Ferry Nuclear Plant," dated October 2009.
- Engineering Planning and Management, Inc. (EPM) Report, P3146-1000-01, Revision 0, "F&O Closeout by Independent Assessment Report for the Browns Ferry Nuclear Plant (BFN) Internal Events PRA Model Against the ASME PRA Standard Requirements and NEI 05-04, Appendix X," dated November 2018.
- Jensen Hughes Report, 01NWL06080.00.00, "Browns Ferry Nuclear: Review of Sources of Uncertainty for the TSTF-425 LAR," dated November 2020.

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3 – REGULATORY  
 AUDIT SUMMARY RELATED TO REQUEST TO IMPLEMENT 10 CFR 50.69  
 RISK-INFORMED CATEGORIZATION AND TREATMENT FOR STRUCTURES,  
 SYSTEMS AND COMPONENTS (EPID L-2020-LLA-0162)  
 DATED FEBRUARY 23, 2021

**DISTRIBUTION:**

PUBLIC  
 PM File Copy  
 RidsACRS\_MailCTR Resource  
 RidsNrrDorLpl2-2 Resource  
 RidsNrrPMWattsBar Resource  
 RidsNrrLABAbeywickrama  
 RidsRgn2MailCenter Resource  
 RidsNrrDraApla Resource  
 RidsNrrDraAplc Resource  
 JPatel, NRR  
 DWu, NRR  
 MBiro, NRR  
 SVasavada, NRR  
 BGrenier, NRR

**ADAMS Accession No.: ML21036A287**

**\*by e-mail**

OFFICE	NRR/DORL/LPL2-2/PM	NRR/DORL/LPL2-2/LA*	NRR/DRA/APLA/BC*
NAME	MWentzel	BAbeywickrama	BPascarelli
DATE	02/05/2021	02/16/2021	01/28/2021
OFFICE	NRR/DORL/LPL2-2/BC*	NRR/DORL/LPL2-2/PM*	
NAME	UShoop	MWentzel	
DATE	02/23/2021	02/23/2021	

**OFFICIAL RECORD COPY**