



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

March 5, 2020

Mr. Daniel G. Stoddard  
Senior Vice President and Chief Nuclear Officer  
Innsbrook Technical Center  
5000 Dominion Blvd.  
Glen Allen, VA 23060-6711

SUBJECT: SURRY NUCLEAR POWER STATION, UNITS 1 AND 2 – AUDIT RE:  
PROPOSED LICENSE AMENDMENT REQUEST TO ADOPT 10 CFR 50.69,  
“RISK-INFORMED CATEGORIZATION AND TREATMENT OF STRUCTURES,  
SYSTEMS AND COMPONENTS FOR NUCLEAR POWER REACTORS”  
(EPID L-2019-LLA-0269)

Dear Mr. Stoddard:

By letter dated December 6, 2019 (Agencywide Documents Access and Management System Accession No. ML19343A019), Dominion Energy Virginia (Dominion), submitted a license amendment request regarding the Surry Nuclear Power Station (Surry), Units 1 and 2. The proposed amendment would adopt 10 CFR 50.69, “Risk-Informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors.”

The U.S. Nuclear Regulatory Commission (NRC) staff will conduct a regulatory audit to support its review of the proposed license amendments. The audit is planned to be conducted remotely to facilitate access to the licensee’s probabilistic risk assessment models, documentation, and technical experts. The NRC staff intends to start the audit on March 16, 2020, and the logistics and scope of the audit plan enclosed. The scope of the audit was discussed with your staff on February 26, 2020.

If you have any questions, please contact me by telephone at (301) 415-2481 or by e-mail at [ed.miller@nrc.gov](mailto:ed.miller@nrc.gov).

Sincerely,

/RA/

G. Edward Miller, Project Manager  
Special Projects and Process Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosure:  
Audit Plan

cc: Listserv

**AUDIT PLAN**  
**BY THE OFFICE OF NUCLEAR REACTOR REGULATION**  
**TO SUPPORT THE REVIEW OF LICENSE AMENDMENT REQUEST**  
**TO ADOPT 10 CFR 50.69, "RISK-INFORMED CATEGORIZATION AND TREATMENT OF**  
**STRUCTURES, SYSTEMS AND COMPONENTS FOR NUCLEAR POWER REACTORS"**  
**SURRY POWER STATION, UNITS 1 AND 2**  
**DOCKET NO. 50-280 AND 50-281**

**1.0     BACKGROUND**

By letter dated December 6, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19343A019), Virginia Electric and Power Company (the licensee) submitted a license amendment request (LAR) for the Surry Power Station (SPS) Units 1 and 2. The proposed amendment would modify the licensing basis of SPS Units 1 and 2 to allow for the implementation of the provisions of Title 10 of the *Code of Federal Regulations* (CFR) 50.69, "Risk-Informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors." As stated in the LAR, the provisions of 10 CFR 50.69 allow adjustment of the scope of equipment subject to special treatment controls (e.g., quality assurance, testing, inspection, condition monitoring, assessment, and evaluation). For equipment determined to be of low safety significance, alternative treatment requirements can be implemented in accordance with this regulation. For equipment determined to be of high safety significance, requirements will not be changed or will be enhanced. This allows improved focus on equipment that has safety significance resulting in improved plant safety.

**2.0     REGULATORY AUDIT BASES**

A regulatory audit is a planned license or regulation-related activity that includes the examination and evaluation of primarily non-docketed information. The bases of this regulatory audit is the licensee's LAR for SPS submitted by letter dated December 6, 2019; 10 CFR 50.69; Regulatory Guide (RG) 1.201, "Guidelines for Categorizing Structures, Systems, and Components in Nuclear Power Plants According to Their Safety Significance," Revision 1 (ADAMS Accession No. ML061090627); RG 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," Revision 2 (ADAMS Accession No. ML090410014); and Inspection Manual Procedure 37060, "10 CFR 50.69 Risk-Informed Categorization and Treatment of Structures, Systems, and Components Inspection." The U.S. Nuclear Regulatory Commission (NRC) staff determined an audit to be the most efficient approach toward a timely resolution of questions associated with the review of this LAR. The audit will provide the NRC staff with an opportunity to confirm that the requests for additional information (RAIs) are necessary to make a regulatory finding on the proposed amendment, minimize the potential for further rounds of RAIs, and clarify information needing to be submitted on the docket.

Enclosure

### **3.0 REGULATORY AUDIT SCOPE OR METHOD**

The areas of focus for this regulatory audit hinge upon the NRC staff's review of the licensee's probabilistic risk assessment (PRA) for acceptability and conformance to applicable regulations and guidance (e.g., 10 CFR 50.69, RG 1.201, and RG 1.200).

The audit will be performed consistent with NRC's Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-111, "Regulatory Audits," dated October 31, 2019 (ADAMS Accession No. ML19226A274). The audit will be conducted from March 16, 2020 to May 15, 2020. The NRC staff will review the documentation requested in Section 4.0 of this audit plan remotely at the NRC headquarters using an online reference portal. If deemed necessary to gain a better understanding of the LAR and supporting documents, the NRC staff will interview licensee personnel familiar with the requested information on a mutually agreeable schedule and location (e.g., plant site, NRC headquarters, telecom, video conference) regarding any questions from the NRC audit team.

The NRC will conduct periodic issue/status exit briefings prior to issuance of the audit summary report. Upon completion of this audit, the NRC staff is expected to identify additional information needed on the docket for the NRC staff to reach a licensing or regulatory decision, which may result in RAs.

### **4.0 INFORMATION NECESSARY FOR THE REGULATORY AUDIT**

The NRC staff requests the licensee provide the following information electronically (i.e., using an online reference portal) to support the regulatory audit.

- uncertainty notebooks for the SPS internal events and internal floods PRAs;
- documentation on evaluation of the generic and plant-specific uncertainties with respect to the SPS LAR dated December 6, 2019 (ADAMS Accession No. ML19343A019);
- reports of peer reviews (full-scope and focused-scope), self-assessments, and Facts & Observations (F&Os) closure reviews for the internal events and internal floods PRAs that are cited in the SPS LAR dated December 6, 2019;
- all applicable PRA notebooks that document the incorporation of the FLEX equipment and FLEX human error probabilities in the PRA models; and
- any other supporting documentation that the licensee may determine is responsive to the NRC staff's above information requests.

The licensee will be informed by electronic mail of the NRC staff's request for additional documentation to be uploaded to the online reference portal.

### **5.0 TEAM ASSIGNMENTS**

The regulatory audit will be conducted by NRC staff from NRR, in the Division of Operating Reactor Licensing (DORL) and in the Division of Risk Assessment (DRA), Probabilistic Risk Assessment Licensing Branches A and C (APLA and APLC), and NRC contractors from the Pacific Northwest National Laboratories (PNNL).

Members of the NRC audit team are noted below:

- Vaughn Thomas (audit team leader, project manager), NRR/DORL/LPL2-1
- Glenn (Eddie) Miller (associate project manager), NRR/DORL/LPL2-1
- Todd Hilsmeier (lead technical reviewer), NRR/DRA/APLA
- Adrienne Brown (technical reviewer), NRR/DRA/APLA
- Alissa Neuhausen (technical reviewer), NRR/DRA/APLC
- De (Wesley) Wu (technical reviewer), NRR/DRA/APLC
- Garill Coles (NRC contractor), PNNL
- Nathan Barrett (NRC contractor), PNNL

## **6.0     LOGISTICS**

The regulatory audit will be started once an electronic portal is set up and the documentation is made available to the NRC audit team. The audit will be performed throughout the duration of the LAR review, consistent with the review schedule for issuance of the safety evaluation in the letter of acceptance dated January 13, 2020 (ADAMS Accession No. ML20021A081). Licensee personnel familiar with the requested information should be made available on a mutually agreeable schedule and location (e.g., plant site, NRC headquarters, telecom, video conference) to respond to any questions from the NRC audit team. The NRC audit team leader will provide updates to the licensee regarding progress of the audit and facilitate any additional requests for documentation to be uploaded to the online reference portal.

## **7.0     DELIVERABLES**

The NRC audit team will develop a regulatory audit summary report to convey the results of the audit. The audit summary report will be placed on the docket and in ADAMS within 90 days of the completion of the audit or before the regulatory action that the audit supports is completed, whichever is shorter. The NRC staff will develop RAs determined to be needed to render a staff finding and issue them to the licensee.

## **8.0     REFERENCES**

1. Sartain, Mark, Vice President, Virginia Electric Power Company (Dominion Energy Virginia), letter to U.S. NRC, "Virginia Electric and Power Company (Dominion Energy Virginia), Surry Power Station, Units 1 and 2, letter to, "Adopt 10 CFR 50.69, "Risk-Informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors," dated December 6, 2019 (Agencywide Documents Access and Management System (ADAMS), Accession No. ML19343A019.
2. U.S. NRC Office Instruction, LIC 111 "Regulatory Audits," dated December 31, 2019 (ADAMS Accession No. ML19226A274).
3. U.S. NRC Regulatory Guide 1.200, Revision 1, "Guidelines for Categorizing Structures, Systems, and Components in Nuclear Power Plants According to their Safety Significance," dated May 2006 (ADAMS Accession No. ML061090627).

4. U.S. Nuclear Regulatory Guide 1.200, Revision 2, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," dated March 2009 (ADAMS Accession No. ML190410014).
5. Miller, Ed, U.S. NRC, email to Gary D. Miller, Dominion Energy, "Surry Power Station, Units 1 and 2 – Acceptance Review," dated January 13, 2020 (ADAMS Accession No. ML20021A081).

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              (EPID L 2019 LLA 0269) DATED MARCH 5, 2020

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**ADAMS Accession No. ML20058A010**

\*Via email

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DATE	02/13/2020	03/05/2020	03/05/2020

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