



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

April 6, 2017

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

SUBJECT: KEWAUNEE POWER STATION AND ISFSI; MILLSTONE POWER STATION UNITS 1, 2 AND 3 AND ISFSI; NORTH ANNA POWER STATION UNITS 1 AND 2 AND ISFSI; AND SURRY POWER STATION UNITS 1 AND 2 AND ISFSI; REQUEST FOR APPROVAL OF REVISION 21 OF THE NUCLEAR FACILITY QUALITY ASSURANCE PROGRAM DESCRIPTION TOPICAL REPORT, DOM-QA-1 (CAC NOS. MF8128, MF8129, MF8130, MF8131, MF8132, MF8133, MF8134)

Dear Mr. Stoddard:

By letter dated July 11, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16196A292), as supplemented by letter dated November 10, 2016 (ADAMS Accession No. ML16321A454), Dominion Energy Kewaunee, Inc. (DEK), Dominion Nuclear Connecticut, Inc. (DNC), and Virginia Electric and Power Company (VEPCO), submitted for the U.S. Nuclear Regulatory Commission (NRC) staff's review, a revision to the Nuclear Facility Quality Assurance Program Description (QAPD) Topical Report, DOM-QA-1, in accordance with 10 CFR 50.54(a)(4).

The proposed DOM-QA-1 revision reflects changes and simplification based on the Kewaunee site's decommissioning status. The proposed changes to DOM-QA-1 are considered to be a reduction in commitments. The changes included restructuring the Kewaunee organization consistent with the reduced quality activities in the decommissioning phase, adding exceptions to American National Standards Institute (ANSI) N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel," for the qualifications required for management positions, replacing the functions of the Kewaunee Independent Review Committee with an Independent Review Group, and adding an exception to Regulatory Guide 1.28, "Quality Assurance Program Requirements (Design and Construction)," Revision 3 for the retention of security plans, procedures, and activity records.

The NRC staff has reviewed Dominion's submittal. Based on its review, the NRC staff concludes that the quality assurance program described in DOM-QA-1, Revision 21 meets the criteria of Appendix B to 10 CFR Part 50, and is, therefore, acceptable.

D. Stoddard

- 2 -

If questions arise on this matter, feel free to contact me, Brenda Mozafari, Senior Project Manager, at (301) 415-2020 or [Brenda.Mozafari@nrc.gov](mailto:Brenda.Mozafari@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Michael T. Markley" followed by the word "for". The signature is cursive and somewhat stylized.

Michael T. Markley, Branch Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos.: 50-305, 50-245; 50-336,  
50-423; 50-338, 50-339; 50-280, 50-281;  
72-47, 72-16, 72-56; 72-2, 72-55; 72-64

Enclosure: Safety Evaluation

cc w/enclosure: Distribution via Listserv



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO REVISION 21 OF THE NUCLEAR FACILITY

QUALITY ASSURANCE PROGRAM

DESCRIPTION TOPICAL REPORT DOM-QA-1

DOMINION ENERGY KEWAUNEE

KEWAUNEE POWER STATION

DOCKET NO. 50-305 AND 72-64

DOMINION NUCLEAR CONNECTICUT, INC.

MILLSTONE POWER STATION, UNITS 1, 2 AND 3

DOCKET NOS. 50-245, 50-336, 50-423 AND 72-47

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION, UNITS 1 AND 2

DOCKET NOS. 50-338, 50-339, 72-16 AND 72-56

SURRY POWER STATION, UNITS 1 AND 2

DOCKET NOS. 50-280, 50-281, 72-2 AND 72-55

1.0 INTRODUCTION

By letter dated July 11, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16196A292), Dominion Energy Kewaunee, Inc., Dominion Nuclear Connecticut, Inc., and Virginia Electric and Power Company submitted for the U.S. Nuclear Regulatory Commission (NRC) staff's review, Revision 21 of the Nuclear Facility Quality Assurance Program Description (QAPD) Topical Report, DOM-QA-1, in accordance with 10 CFR 50.54(a)(4).

DOM-QA-1 provides a top-level overview of the quality program controls applied to quality related items and activities at the Millstone, North Anna, and Surry power stations during the operating phase and the Kewaunee power station during the decommissioning phase. DOM QA-1 is based on the applicable portions of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste," Subpart G, "Quality

Assurance,” and 10 CFR Part 71, “Packaging and Transportation of Radioactive Material,” Subpart H, “Quality Assurance.”

## 2.0 REGULATORY EVALUATION

The Commission’s regulatory requirements related to Quality Assurance (QA) programs are set forth in Appendix B to 10 CFR Part 50 (Appendix B), 10 CFR 50.34(b)(6)(ii), and 10 CFR 50.54(a). In addition, the Commission’s regulatory requirements related to QA programs for the independent storage of spent nuclear fuel and packaging and transportation of radioactive material are addressed in 10 CFR Part 71, Subpart H, and 10 CFR Part 72, Subpart G.

Appendix B establishes the requirements for the design, fabrication, construction, and testing of structures, systems, and components (SSCs) of the facility. The pertinent requirements of Appendix B apply to all activities affecting the safety-related functions of those SSCs and include designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling, and modifying SSCs.

The regulations in 10 CFR 50.34, “Content of applications; technical information,” require that every applicant for an operating license include information in its Final Safety Analysis Report (FSAR) on the managerial and administrative controls to be used to ensure safe operation. The information on the controls shall also include a discussion on how the applicable requirements of Appendix B will be satisfied.

The regulations in 10 CFR 50.54 require each power plant subject to the requirements to implement a QA program and 10 CFR 50.54(a)(4) require licensees to submit to the NRC, changes to their QA Program that reduce commitments.

The regulations in 10 CFR Part 71, Subpart H, establishes the quality assurance requirements applying to design, purchase, fabrication, handling, shipping, storing, cleaning, assembly, inspection, testing, operation, maintenance, repair, and modification of components of packaging that are important to safety.

The regulations in 10 CFR Part 72, Subpart G, establishes the quality assurance requirements that apply to design, purchase, fabrication, handling, shipping, storing, cleaning, assembly, inspection, testing, operation, maintenance, repair, modification of SSCs, and decommissioning that are important to safety.

## 3.0 TECHNICAL EVALUATION

By letter dated July 11, 2016, the licensee requested approval of DOM-QA-1, Revision 21, because the proposed changes are considered a reduction in commitment in accordance with the provisions of 10 CFR 50.54(a)(4). The licensee also provided changes in Revision 22 for information but did not request NRC approval.

In evaluating the adequacy of the revisions to DOM-QA-1, Revision 21, the NRC staff used the guidance contained in NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” Section 17.3, “Quality Assurance Program Description,” dated August 1990 (ADAMS Accession No. ML052350376), which provides acceptance criteria for QAPDs.

The changes made to Revision 21 of DOM-QA-1 include the following:

- (1) Changes to the Kewaunee organization consistent with the reduced amount of quality related activities after the cessation of power operation. This included combining the Maintenance and Operations functions under the responsibility of a single manager and adding a Facilities Program and Processes group. The proposed changes to DOM-QA-1 include the functional responsibilities, levels of authority, and provide independence between persons and organizations executing performance activities and those executing verification and self-assessment activities.
- (2) Changes involving adding exceptions to ANSI N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel," for: (1) the experience requirements for the management position for the combined Operations and Maintenance group and the management position for Technical Services to be reduced from eight years to seven years; (2) work experience gained at a decommissioning nuclear facility may be credited as nuclear power plant experience; and (3) removing the requirement for the management position for the combined Operations and Maintenance group to hold a Senior Operator's license. The proposed changes maintain assurance that personnel assigned to implement elements of the QA program are capable of performing their assigned task.
- (3) Changes involving transitioning from a Facility Safety Review Committee (FSRC) to a Facility Safety Review Group (FSRG). The proposed changes to DOM-QA-1 include a description of the independent review body organizational structure, functional responsibilities, level of authorities and interfaces. The proposed organizational changes provide sufficient authority and organizational freedom.
- (4) Changes involving adding an exception to NRC Regulatory Position C.2 of Regulatory Guide (RG) 1.28, Revision 3 for the retention of security plans, procedures, and activity records. The proposed change requires that records related to security plans, procedures and activities will be maintained in the accordance with the applicable NRC security regulations and orders. RG 1.28 requires that security plans, procedures, and activity records be retained as lifetime records, while 10 CFR 37.103, "Record Retention," states that, "Licensees shall maintain the records that are required by the regulations in this part for the period specified by the appropriate regulation. If a retention period is not otherwise specified, these records must be retained until the Commission terminates the facility's license."

The NRC staff reviewed the above changes in accordance with NUREG-0800, Section 17.3; 10 CFR 50, Appendix B; 10 CFR 71, Subpart H; and 10 CFR 72, Subpart G, and concludes that the proposed changes to DOM-QA-1, Revision 21, continue to meet the regulations and are, therefore, acceptable.

#### 4.0 CONCLUSION

Based on the above, the NRC concludes that the proposed changes in QAPD DOM-QA-1, meet the applicable portions of 10 CFR Part 50, Appendix B, 10 CFR 71, Subpart H and 10 CFR 72, Subpart G. The program description adequately describes the provisions to meet regulatory requirements.

5. REFERENCES

1. NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," Section 17.3, "Quality Assurance Program Description" dated August 1990 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML052350376).
2. RG 1.28, "Quality Assurance Program Requirements (Design and Construction)" Revision 3, dated August 1985 (ADAMS Accession No. ML003739981).
3. Heacock, David A., Virginia Electric and Power Company, Dominion Nuclear Connecticut, Inc., Dominion Energy Kewaunee, Inc., letter to the U.S. Nuclear Regulatory Commission, "Kewaunee, and ISFSI, Millstone, Units 1, 2 & 3, and ISFSI, North Anna, Units 1 & 2, and ISFSI, Surry, Units 1 & 2, and ISFSI Submission of Rev. 21 of Quality Assurance Topical Report for NRC Approval and Submission of Revision 22 for information Only," dated July 11, 2016 (ADAMS Accession No. ML16196A292).
4. Sreenivas, V., U.S Nuclear Regulatory Commission, email to Heacock, David A., Virginia Electric and Power Company, Dominion Nuclear Connecticut, Inc., Dominion Energy Kewaunee, Inc.," Request for Additional Information: DOMINION ENERGY KEWAUNEE, DOMINION NUCLEAR CONNECTICUT AND VIRGINIA ELECTRIC POWER COMPANY NUCLEAR FACILITY QUALITY ASSURANCE PROGRAM DESCRIPTION TOPICAL REPORT DOM-QA-1," dated October 10, 2016 (ADAMS Accession No. ML16287A714).
5. Heacock, David A., Virginia Electric and Power Company, Dominion Nuclear Connecticut, Inc., Dominion Energy Kewaunee, Inc., letter to the U.S. Nuclear Regulatory Commission, "Dominion Energy Kewaunee, Dominion Nuclear Connecticut and Virginia Electric & Power Company Response to Request for Additional Information RE: Revision 22 of Quality Assurance Program Description Topical Report," dated November 10, 2016 (ADAMS Accession No. ML16321A454).
6. American National Standards Institute (ANSI) N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel," New York, New York, 1971.

SUBJECT: KEWAUNEE POWER STATION AND ISFSI; MILLSTONE POWER STATION UNITS 1, 2 AND 3 AND ISFSI; NORTH ANNA POWER STATION UNITS 1 AND 2 AND ISFSI; AND SURRY POWER STATION UNITS 1 AND 2 AND ISFSI; REQUEST FOR APPROVAL OF REVISION 21 OF THE QUALITY ASSURANCE PROGRAM DESCRIPTION TOPICAL DOM-QA-1 (CAC NOS. MF8128, MF8129, MF8130, MF8131, MF8132, MF8133, MF8134) DATED APRIL 6, 2017.

DISTRIBUTION:

PUBLIC  
 LPL1-1 R/F  
 RidsNrrLAKGoldstein Resource  
 RidsNrrDorIDpr Resource  
 RidsNrrDorlLpl1-1 Resource  
 RidsACRSMailCTR Resource  
 RidsNrrDeEpnb Resource  
 RidsRgn2MailCenter Resource  
 RidsNrrPMKewaunee Resource  
 RidsNrrPMMillstone Resource  
 PPrescott, NRO/DCIP/QVIB3  
 RidsNrrPMSurry Resource  
 RidsNrrPMNorthAnna Resource  
 JBowen, OEDOC  
 Abbott, NRO/DCIP/QVIB3  
 BWatson, NMSS/DUWP/RDB  
 TCarter, NMSS/DUWP/RDB  
 JMcKirgan, NMSS/DSFM/SFLB  
 JGoshen, NMSS/DSFM/SFLB  
 KKavanagh, NRO/DCIP/QVIB3  
 AFerguson, NRO/DCIP/QVIB3  
 KCotton-Gross, NRR/DORL/LPL2-1/PM

\*\*by eMail

\* Memo dated 01/12/17

**ADAMS Accession No.:ML17046A316**

OFFICE	NRR/DORL/LPL2-1/PM	NRR/DORL/LPL2-1/LA	NRO/DCIP/QVIB-3/BC*
NAME	BMozafari	KGoldstein	KKavanagh*
DATE	02/13/17	03/30/17	01/12/17
OFFICE	NMSS/DUWP/BC	NMSS/DSFM/SFLB/BC	NRR/DORL/LPL2-1/BC
NAME	BWatson**	JMcKirgan**	MMarkley
DATE	03/13/17	03/24/17	04/06/17
OFFICE	NRO/DCIP/QVIB3	NRR/DORL/LPL2-1/PM	
NAME	AFerguson	BMozafari	
DATE	01/12/17	03/24/17	

**OFFICIAL RECORD COPY**