



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

October 2, 2023

Mr. Eric S. Carr
Senior Vice President and
Chief Nuclear Officer
Innsbrook Technical Center
5000 Dominion Blvd.
Glen Allen, VA 23060-6711

SUBJECT: DOMINION ENERGY REVISION 35 OF THE QUALITY ASSURANCE TOPICAL REPORT DOM-QA-1 – REVIEW OF PROGRAM CHANGES (EPID L-2023-LLQ-0003)

Dear Mr. Carr:

By letter dated June 20, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23172A206), Dominion Energy (Dominion) provided changes and submitted DOM-QA-1, Revision 35 to its quality assurance topical report (QATR) for Millstone Power Station, Unit Nos. 1, 2, and 3, Virgil C. Summer Nuclear Station, Unit No. 1, North Anna Power Station, Unit Nos. 1 and 2, and Surry Power Station, Unit Nos. 1 and 2.

The U.S. Nuclear Regulatory Commission (NRC) staff reviewed Dominion's changes to its QATR, and as documented in the enclosed safety evaluation, finds that Dominion will continue to comply with the criteria 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. Therefore, the NRC staff concluded that the changes to the Dominion Energy Nuclear Facility Quality Assurance Program Description [QAPD], Revision 35, are acceptable. The changes in Dominion's application are also hereby approved for its co-located Independent Spent Fuel Storage Installations (ISFSIs) under their applicable site-specific and general licenses.

E. Carr

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If you have any questions, please contact Ed Miller at (301) 415-2481 or by e-mail at ed.miller@nrc.gov.

Sincerely,

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

Docket Nos. 50-245, 50-336, 50-423, 50-395
50-338, 50-339, 50-280, 50-281,
72-47, 72-55, 72-56, 72-1038,
72-16, and 72-2.

Enclosure:
Safety Evaluation

cc: Listserv



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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REVISION 35 OF THE QUALITY ASSURANCE TOPICAL REPORT

DOMINION ENERGY NUCLEAR CONNECTICUT, INC.

DOMINION ENERGY SOUTH CAROLINA, INC.

VIRGINIA ELECTRIC AND POWER COMPANY

MILLSTONE POWER STATION, UNIT NOS. 1, 2, AND 3

VIRGIL C. SUMMER NUCLEAR STATION UNIT NO. 1

NORTH ANNA POWER STATION UNIT NOS. 1 AND 2

SURRY POWER STATION UNIT NOS. 1 AND 2

REACTOR DOCKET NOS. 50 245, 50 336, 50-423, 50-395, 50-338, 50-339, 50-280,

AND 50-281

ISFSI DOCKET NOS. 72-47, 72-55, 72-56, 72-1038, 72-16, AND 72-2

1.0 INTRODUCTION

By letter dated June 20, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23172A206), Dominion Energy (Dominion) provided changes and submitted Revision 35¹ to its quality assurance topical report DOM-QA-1 (QATR). The QATR describes the quality assurance (QA) program for the following plants: Millstone Unit Nos, 1, 2, and 3 (MPS); Virgil C. Summer Unit No. 1 (VCS); North Anna Power Station Unit Nos. 1 and 2 (NAPS); Surry Power Station Unit Nos. 1 and 2 (SPS); and the associated Independent Spent Fuel Storage Installations (ISFSIs) for each site. The QATR is incorporated by reference in the Updated Final Safety Analysis Report for each of the facilities.

On July 17, 2023, a call was held between the NRC staff and Dominion to discuss a change that Dominion had made to Revision 34 of Dominion's QATR. Specifically, QATR Revision 34 changed commitments to meet Regulatory Guide (RG) 1.8 "*Qualification and Training of Personnel for Nuclear Power Plants*," (various revisions) to new commitments to meet Revision

¹ Revision 35 was submitted pursuant to 10 CFR 50.71(e) and included changes incorporated by reference as QATR Revisions 33 and 34 which Dominion had previously adopted pursuant to 10 CFR 50.54(a)(3).

4 of RG 1.8 (ML19101A395), June 2019, for each facility. Dominion cited 10 CFR 50.54(a)(3)(i) as the basis for the change. Based on that discussion, the NRC staff determined that 10 CFR 50.54(3)(a)(i)-(ii) was not applicable and NRC review of the change was required.

For each site, the NRC previously approved amendments to the Administrative Controls technical specifications (TS) concerning Unit Staff Qualifications such that the TS now state, in part, that each member of the unit staff shall meet or exceed the minimum qualifications referenced for comparable positions as specified in the Nuclear Facility Quality Assurance Program Description.

2.0 REGULATORY EVALUATION

The regulatory requirements for nuclear power plant QA programs are set forth in 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*,” and 10 CFR 50.54(a). In addition, the regulations in 10 CFR 50.120 provide regulatory requirements for training and qualification of nuclear power plant personnel.

Appendix B to 10 CFR Part 50 establishes the requirements for the design, fabrication, construction, and testing of nuclear power plant structures, systems, and components. Criterion II, “*Quality Assurance Program*,” of Appendix B to 10 CFR Part 50, establishes requirements for indoctrination and training of personnel. Criterion II states, in part, that “*The program shall provide for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained.*”

The regulation in 10 CFR 50.54(a), requires each nuclear power plant licensee subject to the requirements of Appendix B shall implement a QA program. The regulation in 10 CFR 50.54(a)(4), sets forth the NRC’s regulatory requirements regarding changes to a QA program description that are considered to be a reduction in commitment. Changes to a QA program description that do reduce commitments must be submitted to the NRC and receive approval prior to implementation.

The regulation in 10 CFR 50.120, requires each nuclear power plant licensee to establish, implement, and maintain a training and qualification program that is derived from a systems approach to training as defined in 10 CFR 55.4, and must provide for the training and qualification of various categories of nuclear power plant personnel.

3.0 TECHNICAL EVALUATION

In its letter dated June 20, 2023, Dominion submitted for NRC review its proposed Revision 35 of the QATR, which incorporated changes it had made in QATR Revisions 33 and 34. In Revision 34 of the QATR, Dominion changed the education and work experience requirements for plant personnel consistent with the regulatory guidance contained in RG 1.8, Revision 4.

The current qualification requirements for plant personnel at each plant are either American National Standards Institute (ANSI) N18.1-1971, “*Selection and Training of Nuclear Power Plant Personnel*,” or various revisions of American National Standards Institute/American Nuclear Society (ANSI/ANS)-3.1, “*Selection and Training of Nuclear Power Plant Personnel*.” MPS has committed to meet RG 1.8, Revision 1-R (Re-issued May 1977 – ML12305A250) which endorses ANSI N18.1-1971, “*Selection and Training of Nuclear Power Plant Personnel*.” NAPS and SPS have committed to meet RG 1.8, Second Proposed Revision 2 (September 1980 –

ML19269H291), which is a draft endorsement of ANSI/ANS-3.1 (Draft 12/79), "*Qualification and Training of Personnel for Nuclear Power Plants.*" VCS has committed to meet RG 1.8, Revision 2 (April 1987 – ML003739928) which endorses ANSI/ANS 3.1-1981 and adopts the regulatory positions from RG 1.8, Revision 2, for shift supervisor, senior operator, licensed operator, shift technical advisor, and radiation protection manager, and commits to meet ANSI 18.1-1971 for all other positions. For quality verification functions and support functions across multiple facilities, Dominion committed to meet RG 1.8, Revision 3 (ML003706932), which endorses ANSI/ANS-3.1-1993.

In QATR Revision 34 (Change No. 2022-004), Dominion revised the QATR to replace the existing commitments to the various revisions of RG 1.8, described above, with the commitments endorsed by Revision 4 of RG 1.8 in its entirety. The qualification requirements are from the ANSI/ANS-3.1-2014, "*Selection, Qualification, and Training of Personnel for Nuclear Power Plants,*" standard, which requires various levels of education and experience across specific positions for plant personnel. ANSI/ANS-3.1-2014 is endorsed, with certain exceptions and clarifications, by RG 1.8, Revision 4.

In its submittal, Dominion identified the QAPD requirements for operations managers, quality control, and quality assurance personnel. The individual filling the role of the operations manager and the individual filling the role of operations middle manager (supervisor shift operations) will be required to meet the license requirements of NAPS Technical Specification 5.2.2.e, SPS Technical Specification 6.1.2.2.d, MPS Unit 2 Technical Specification 6.3.2, and MPS Unit 3 Technical Specification 6.3.2, as applicable. Technical Specifications for MPS Unit 1 and VCS do not contain license requirements for Operations Middle Managers, and the requirements of ANSI/ANS-3.1-2014 will apply for those facilities including associated ISFSIs. ANSI/ANS-3.1-2014 endorses ANSI/American Society of Mechanical Engineers ASME) NQA-1-2008 "*Quality Assurance Requirements for Nuclear Facility Applications*" and NQA-1a-2009 for education, experience, and special requirements for qualification of Quality Control and Quality Assurance personnel. As an alternative to ANSI/ASME NQA-1-2008 and NQA-1a-2009, Dominion has replaced those references with references to ANSI/ASME NQA-1-1994 and its associated Supplements and Appendices. Dominion committed to meet NQA-1-1994 and its commitment to meet RG 1.8, Revision 4 does not change this commitment, as NQA-1-1994 has no requirements that are incompatible with Dominion's commitment to meet RG 1.8, Revision 4. Thus, the changes were consistent with RG 1.8, Revision 4.

The NRC staff reviewed Dominion's changes to the QATR in Revisions 33, 34, and 35. The NRC staff determined that the change in Revision 34 of the QATR to the education and work experience requirements for plant personnel are consistent with the requirements of ANSI/ANS 3.1-2014, which has been endorsed by the NRC in RG 1.8, Revision 4. Therefore, this change will continue to provide the minimum experiential, professional, and educational requirements necessary to ensure that assigned plant personnel can independently evaluate risks and safely execute the responsibilities associated with the specific assigned positions.

4.0 CONCLUSION

The NRC staff reviewed Dominion Energy's DOM-QA-1, Revision 35, which incorporated Revisions 33 and 34 of the QATR. The NRC staff found that the change to revise the education and work experience requirements for plant personnel, is consistent with RG 1.8, Revision 4, and will continue to comply with Criterion II of Appendix B to 10 CFR Part 50, 10 CFR 50.54(a), 10 CFR 50.120, and plant license requirements. The QATR revision is, therefore, acceptable.

Principal Contributor: M. Fitzgerald, NRR

Date of Issuance: October 2, 2023

SUBJECT: DOMINION ENERGY REVISION 35 OF THE QUALITY ASSURANCE TOPICAL REPORT – REVIEW OF PROGRAM CHANGES (EPID L-2023-LLQ-0003) DATED

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***Via SE Input**

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