



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

February 17, 2012

Mr. David A. Heacock  
President and Chief Nuclear Officer  
Dominion Nuclear  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: KEWAUNEE POWER STATION, MILLSTONE POWER STATION UNITS 1, 2, AND 3, NORTH ANNA POWER STATION UNITS 1 AND 2, SURRY POWER STATION UNITS 1 AND 2 AND THEIR RESPECTIVE INDEPENDENT SPENT FUEL STORAGE INSTALLATIONS – REVIEW OF DOMINION FLEET QUALITY ASSURANCE TOPICAL REPORT, REVISION 11 (TAC NOS. ME6648, ME6649, ME6650, ME6651, ME6652, ME6653, AND ME6654)

Dear Mr. Heacock:

By letter dated June 28, 2011, as supplemented by letter dated August 15, 2011, Dominion Resources Services, Inc., on behalf of Dominion Energy Kewaunee, Inc., Dominion Nuclear Connecticut, Inc., and Virginia Electric and Power Company (collectively, the licensees), submitted Revision 11 of the fleet Quality Assurance Topical Report, DOM-QA-1, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Sections 50.54(a)(3) and 50.71(e), for Kewaunee Power Station, Millstone Power Station, Units 1, 2, and 3, North Anna Power Station, Units 1 and 2, Surry Power Station, Units 1 and 2, and their respective independent spent fuel storage installations.

The U.S. Nuclear Regulatory Commission (NRC) reviewed the submittals and has concluded that the licensees' quality assurance program description, including alternatives, adequately addresses the requirements of Appendix B to 10 CFR Part 50 and is therefore, acceptable.

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The NRC staff's safety evaluation is enclosed. If you have any questions, please contact me at (301) 415-3079.

Sincerely,

A handwritten signature in black ink that reads "Karl D. Feintuch". The signature is written in a cursive style with a large, looping initial "K".

Karl Feintuch, Project Manager  
Plant Licensing Branch III-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;  
72-64; 72-47; 72-16, 72-56; 72-2, 72-55

Enclosure:  
Safety Evaluation

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SAFETY EVALUATION BY THE  
OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO  
RENEWED FACILITY OPERATING LICENSE NO. DPR-43  
FOR THE KEWAUNEE POWER STATION, DOCKET NO. 50-305  
RENEWED FACILITY OPERATING LICENSE NO. NPF-4  
FOR THE NORTH ANNA POWER STATION, UNIT 1, DOCKET NO. 50-338  
RENEWED FACILITY OPERATING LICENSE NO. NPF-7  
FOR THE NORTH ANNA POWER STATION, UNIT 2, DOCKET NO. 50-339  
RENEWED FACILITY OPERATING LICENSE NO. DPR-32  
FOR THE SURRY POWER STATION, UNIT 1, DOCKET NO. 50-280  
RENEWED FACILITY OPERATING LICENSE NO. DPR-37  
FOR THE SURRY POWER STATION, UNIT 2, DOCKET NO. 50-281  
FACILITY OPERATING LICENSE NO. DPR-21  
FOR THE MILLSTONE POWER STATION, UNIT 1, DOCKET NO. 50-245  
RENEWED FACILITY OPERATING LICENSE NO. DPR-65  
FOR THE MILLSTONE POWER STATION, UNIT 2, DOCKET NO. 50-336  
RENEWED FACILITY OPERATING LICENSE NO. NPF-49  
FOR THE MILLSTONE POWER STATION, UNIT 3, DOCKET NO. 50-423  
AND THEIR RESPECTIVE  
INDEPENDENT SPENT FUEL STORAGE INSTALLATIONS

Enclosure

## 1.0 INTRODUCTION

By letter dated June 28, 2011 (Reference 1) Dominion Resources Services, Inc., on behalf of Dominion Energy Kewaunee, Inc., Dominion Nuclear Connecticut, Inc., and Virginia Electric and Power Company (collectively, Dominion, the licensees) submitted their periodic update of the Nuclear Facilities Quality Assurance Program Description (NFQAPD) Topical Report (DOM-QA-1), Revision 11, pertaining to Kewaunee Power Station; Millstone Power Station, Units 1, 2, and 3; North Anna Power Station, Units 1 and 2; and Surry Power Station, Units 1 and 2, and their respective independent spent fuel storage installations (ISFSIs). The submittal was subsequently revised by the licensees' letter dated August 15, 2011, (Reference 2) to reflect the licensees' response to a Nuclear Regulatory Commission (NRC) request for additional information (RAI) (Reference 3).

## 2.0 BACKGROUND

The periodic updates made to the NFQAPD Topical Report were submitted by the June 28, 2011, letter (as Attachment 1) in accordance with the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.71(e). During the NRC staff's review of the latest updates to DOM-QA-1 the staff noted that the June 28, 2011 letter stated that: "Attachment 2 provides a discussion of changes made to DOM-QA-1 for reduction in commitment." In RAI-1, the staff requested the licensees to explain and resolve the discrepancy between the cover letter of the Topical Report (Reference 1) that characterized the changes to DOM-QA-1 as a reduction in commitment, relative to the analysis in Attachment 2, which concluded that the same changes were not reductions in commitment. In its response (Reference 2) the licensees included a clarifying statement explaining that Attachment 2 contained no changes that resulted in a reduction in commitment to DOM-QA-1.

Topical Report letter dated August 15, 2011, provided additional information in support of the revision to the DOM-QA-1, submitted as Attachment 3 of the original submittal. The QA program described in the NFQAPD commits to the guidance of the American Society of Mechanical Engineers (ASME) Nuclear Quality Assurance (NQA) standard NQA-1/1994, "Quality Assurance Requirements for Nuclear Applications."

## 3.0 REGULATORY EVALUATION

The Commission's regulatory requirements related to QA programs are set forth in Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, 10 CFR 50.34(b)(6)(ii), and 10 CFR 50.54(a).

Appendix B of 10 CFR 50 establishes QA requirements for the design, construction, and operation of structures, systems, and components (SSCs) of the facility. The pertinent requirements of Appendix B to 10 CFR Part 50 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.

Section 50.34 of 10 CFR 50, "Contents of [construction permit and operating license] applications; technical information," requires 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 assure safe operation. The information on the controls shall also include a discussion of how the applicable requirements of Appendix B will be satisfied.

Section 50.54(a)(3) of 10 CFR 50, states that licensees may make a change to a previously accepted QA program description included or referenced in the SAR without prior NRC approval, provided the change does not reduce the commitments in the program description as accepted by the NRC. Changes to the QAPD that do reduce the commitments must be submitted to the NRC and receive NRC approval prior to implementation.

#### 4.0 EVALUATION

The NRC staff evaluated the adequacy of the QA Topical Report (QATR) in its description of how the requirements of Appendix B to 10 CFR Part 50 would be satisfied. The format and content of the QATR were evaluated in accordance with the guidance of NUREG-0800, "Standard Review Plan," Section 17.5 (SRP 17.5), which provides a basis for the NRC staff review of QA programs based on Standard NQA-1-1994. The acceptability of the level of detail provided by the QATR is determined, in part, by its adequacy in addressing the acceptance criteria of SRP 17.5.

##### 4.1 Acceptability of the QA Program Description

###### 4.1.1 Control of Purchased Material, Equipment, and Services

The licensees have established the necessary measures and governing procedures to control the procurement of items and services to assure conformance with specified requirements. Such controls shall provide for the following, as appropriate: source evaluation and selection, evaluation of objective evidence of quality furnished by the supplier, source inspection, audit, and examination of items or services upon delivery of completion. The licensees, as part of the periodic update made to DOM-QA-1, added an alternative to the NQA-1-1994, Supplement 7S-1, to provide acceptance of commercial grade calibration services by a nationally recognized accreditation body in lieu of a commercial grade survey. Pursuant to 10 CFR 50.54(a)(3)(ii), licensees may adopt use of a quality assurance alternative or exception approved by an NRC safety evaluation, provided that the bases of the NRC approval are applicable to the licensee's facility. The NRC staff found that the proposed changes were similar to the alternatives cited as precedence by the licensees (Reference 4). In RAI-2, the NRC staff requested the licensees to clarify how DOM-QA-1 intends to implement the proposed alternative (NQA-1-1994, Supplement 7S-1) to be consistent with Section 17.5, paragraph II.L.8 of the SRP. In its response, the licensees revised DOM-QA-1 to be consistent with paragraph II.L.8 of SRP 17.5.

Dominion supplemented the initial proposed alternative by adding two new conditions in order to satisfy the guidance in SRP 17.5: (1) the calibration laboratory is a domestic (United States) calibration service supplier, and (2) the proposed alternative also applies to sub-suppliers of calibration services. In establishing a program for the control of items and services, the licensees commit to compliance with Appendix B to 10 CFR Part 50, Criterion VII and NQA-1, Basic Requirement 7 and Supplement 7S-1 with clarifications and exceptions to 7S-1.

As set forth above, the staff reviewed the QA measures to be implemented by the licensees and concluded that the program for the control of purchased material, equipment, and services meets the guidance in SRP 17.5.

## 5.0 CONCLUSION

The NRC staff evaluated the licensees' QATR (Reference 2) submittal and the supplemental correspondence. The NRC staff concludes that the licensees' QA program description, including alternatives, adequately addresses the requirements of Appendix B to 10 CFR Part 50 and is therefore, acceptable.

## 6.0 REFERENCES

1. L. N. Hartz, Dominion Energy Kewaunee, Inc., Dominion Nuclear Connecticut, Inc. and Virginia Electric and Power Company, to the NRC, "Virginia Electric and Power Company, Kewaunee Power Station and ISFSI [independent spent fuel storage installation], Millstone Power Station Units 1, 2, and 3 and ISFSI, North Anna Power Station Units 1 and 2 and ISFSI, Surry Power Station Units 1 and 2 and ISFSI, Submission of Revision 11 of the Quality Assurance Topical Report," dated June 28, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML111800730).
2. J. Alan Price, Dominion Energy Kewaunee, Inc., Dominion Nuclear Connecticut, Inc. and Virginia Electric and Power Company, to the NRC, "Dominion Energy Kewaunee, Inc. Dominion Nuclear Connecticut, Inc. Virginia Electric and Power Company, Kewaunee Power Station and ISFSI [independent spent fuel storage installation], Millstone Power Station Units 1, 2, & 3 and ISFSI, North Anna Power Station Units 1 & 2 and ISFSI, Surry Power Station Units 1 & 2 and ISFSI, Re-Submission of Quality Assurance Topical Report," dated August 15, 2011 (ADAMS Accession No. ML11245A077).
3. Karl Feintuch, NRC electronic correspondence (email) to Craig D. Sly, Dominion Resources Services, Inc., Nuclear Licensing and Operations Support, "ME6648-54 Dominion QATR review Draft RAI Questions Re: Proposed changes to DOM-QA-1 Topical Report," dated July 11, 2011 (ADAMS Accession No. ML11192A186).
4. Safety Evaluation by the NRC Office of Nuclear Reactor Regulation regarding Proposed Change to the Quality Assurance Program, "Palo Verde Nuclear Generating Station, Units 1, 2, and 3 - Approval of Change to Quality Assurance Program (Commercial-Grade Calibration Services)," dated September 28, 2005 (ADAMS Accession Number ML052710224).

Principal Contributor: J. Ortega-Luciano, NRR

Date: February 17, 2012

The NRC staff's safety evaluation is enclosed. If you have any questions, please contact me at (301) 415-3079.

Sincerely,

**/RA/**

Karl Feintuch, Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
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