

Eugene S. Grecheck
Vice President
Nuclear Development



Dominion Energy, Inc. • Dominion Generation
Innsbrook Technical Center
5000 Dominion Boulevard, Glen Allen, VA 23060
Phone: 804-273-2442, Fax: 804-273-3903
E-mail: Eugene.Grecheck@dom.com

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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Serial No. NA3-09-021RA
Docket No. 52-017
COL/JPH

DOMINION VIRGINIA POWER
NORTH ANNA UNIT 3 COMBINED LICENSE APPLICATION
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION LETTER 037
(FSAR Chapter 3)

On May 28, 2009, the NRC requested additional information to support the review of certain portions of the North Anna Unit 3 Combined License Application (COLA). The letter contained four RAIs. Dominion responded to three of the RAIs by letter dated August 24, 2009 (Serial No. NA3-09-021R). The response to the remaining RAI is provided in Enclosure 1:

- RAI Question 03.10-1 Equipment Qualification

This information will be incorporated into a future submission of the North Anna Unit 3 COLA, as described in Enclosure 1.

Please contact Regina Borsh at (804) 273-2247 (regina.borsh@dom.com) if you have questions.

Very truly yours,

Eugene S. Grecheck

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NRO

Enclosure:

1. Response to RAI Letter Number 037, RAI Question 03.10-1

Commitments made by this letter:

1. Incorporate proposed changes in a future COLA submission.

COMMONWEALTH OF VIRGINIA

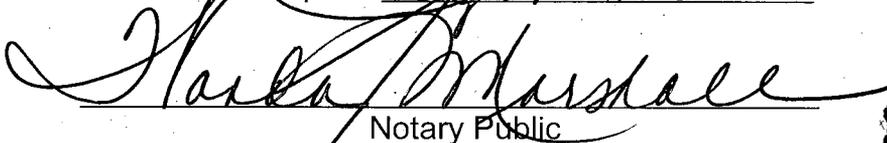
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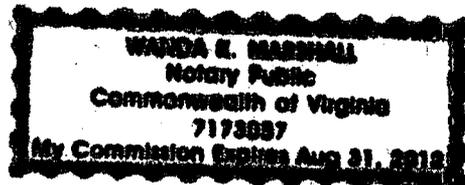
The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Eugene S. Grecheck, who is Vice President-Nuclear Development of Virginia Electric and Power Company (Dominion Virginia Power). He has affirmed before me that he is duly authorized to execute and file the foregoing document on behalf of the Company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 28th day of October, 2009

My registration number is 7173057 and my

Commission expires: August 31, 2012


Notary Public



cc: U. S. Nuclear Regulatory Commission, Region II
T. A. Kevern, NRC
I. Berrios, NRC
J. Jessie, NRC
M. Eudy, NRC
J. T. Reece, NRC

ENCLOSURE 1

Response to NRC RAI Letter 037

RAI Question 03.10-1

NRC RAI 03.10-1

RG 1.206 Sections C.I.3.10.4 and C.III.3.10.4 state that the applicant should provide results of tests and analysis to demonstrate adequate seismic qualification of equipment. Verification of this aspect of plant construction is necessary to allow the Commission to find that the plant is built and will operate in accordance with the regulations. However, RG 1.206 acknowledges that this level of detail may not be available and provides the alternative of provision of an implementation plan including milestones and completion dates.

The North Anna FSAR does not provide either the results of qualification or an implementation plan. This information is necessary for the staff to make a reasonable assurance safety finding for licensing (i.e., to find that the design is in accordance with the regulations). The information included with this plan should address those planning details not addressed in the DCD including, for example, a listing of the equipment to be qualified, the method of qualification, who will be performing the qualification, the timing, etc. It would be expected that all information for phases to be completed prior to procurement would be made available for review prior to licensing. For example, the list of equipment and qualification method can be provided now with wording for a license condition which will require provision of the name of the organization qualifying the equipment and details on timing post procurement six months before the qualification process is expected to be completed. It is expected that this information would be available to be audited by the NRC Staff prior to equipment installation. Therefore, the applicant is requested to provide an implementation plan that includes the level of detail that will be completed prior to procurement and the plan for completing equipment qualification as called for in RG 1.206 and the example described above or justify a different approach.

Dominion Response

Dominion's implementation plan for the seismic and dynamic qualification of North Anna 3 equipment is based on the requirements of the DCD, including the ITAAC requirements for equipment qualification. Additionally, the FSAR will be revised to address the NRC's request for documentation to be available prior to equipment installation.

DCD Section 3.10 describes the seismic and dynamic qualification program. This program is incorporated by reference in the FSAR. The program description includes:

- Scope of equipment categories covered by the program, including a list of the SSCs covered by the program (DCD Tier 2, Table 3.2-1)
- Applicable standards and Regulatory Guides
- Description of the qualification methods

- Qualification criteria and the deciding factors for choosing between tests or analysis
- Documentation requirements for the program

For COL applicants referencing a certified design, RG 1.206 Section C.III.3.10 contains the following introductory text:

“C.I.3.10 Seismic and Dynamic Qualification of Mechanical and Electrical Equipment

For equipment not included in the referenced certified design, provide the results of tests and analyses that demonstrate adequate seismic and dynamic qualification of mechanical and electrical equipment....”

All of the North Anna equipment that requires seismic or dynamic qualification is included in the referenced certified design, under the program incorporated by reference from the DCD in FSAR Section 3.10.

In addition to using the program description that is provided by incorporating DCD Section 3.10 into the FSAR, the plan for seismic and dynamic equipment qualification is implemented through the associated DCD ITAAC [refer to General Electric-Hitachi response to DCD RAI 3.10-5 S4, contained in Letter MFN 06-307 S6, November 5, 2008 (ML083120278)]. Equipment required to be qualified is defined in the DCD Tier 1, ITAAC tables (e.g., DCD Tier 1, Tables 2.2.4-4 and 2.2.4-5 for the Standby Liquid Control System). These ITAAC, are incorporated by reference in Part 10 of the COLA.

Because the seismic and dynamic qualification of equipment is prescribed in the DCD Tier 1, ITAAC, Dominion is required to provide a schedule to the NRC staff that defines when this qualification will be completed. The NRC regulations (10 CFR 52.99) require that a licensee submit to the NRC no later than one year after issuance of the combined license, or at the start of construction as defined in 10 CFR 50.10(b), whichever is later, its schedule for completing the ITAAC. The regulations also require the licensee to submit updates to the ITAAC schedules every six months thereafter, and within one year of the scheduled date for initial fuel load, the licensee is required to submit updates to the schedule every 30 days. Dominion will use the ITAAC tracking and scheduling mechanism as part of the equipment qualification implementation plan, and the means to notify the NRC of the implementation schedule.

The completion of the ITAAC that verify seismic and dynamic equipment qualification is expected to occur before the equipment is installed. Dominion will have the necessary documentation describing the qualification method for each applicable component available for staff review and audit in sufficient time prior to equipment installation. The ITAAC implementation schedule will serve as the staff's notification regarding upcoming equipment qualification. The applicable documentation will be available for staff review and audit 60 days prior to the completion date of the ITAAC (e.g., Table 2.2.2-7, Design Commitment #5) that verifies the seismic and dynamic qualification of the component.

To address the staff's concern regarding the availability of qualification documents for staff audit prior to equipment installation, Dominion will add the following commitment in FSAR Section 3.10:

“Documentation that defines the seismic and dynamic qualification method for a component will be made available for NRC staff review 60 days prior to the scheduled completion date of the ITAAC that verifies the seismic and dynamic qualification of the component.”

Proposed COLA Revision

The FSAR will be revised as described in the attached markup.

Markup of North Anna COLA

The attached markup represents Dominion's good faith effort to show how the COLA will be revised in a future COLA submittal in response to the subject RAI. However, the same COLA content may be impacted by revisions to the ESBWR DCD, responses to other COLA RAIs, other COLA changes, plant design changes, editorial or typographical corrections, etc. As a result, the final COLA content that appears in a future submittal may be somewhat different than as presented herein.

3.10 Seismic and Dynamic Qualification of Mechanical and Electrical Equipment

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

3.10.1.4 Dynamic Qualification Report

Replace the last paragraph with the following.

STD COL 3.10.4-1-A

A schedule will be provided within 12 months after issuance of the COL that supports planning for and conducting of NRC inspections of seismic and dynamic qualification of mechanical and electrical equipment. The schedule will be updated every 6 months until 12 months before scheduled fuel loading.

Documentation that defines the seismic and dynamic qualification method for a component will be made available for NRC staff review 60 days prior to the scheduled completion date of the ITAAC that verifies the seismic and dynamic qualification of the component.

The Dynamic Qualification Report will be completed prior to fuel load. FSAR information will be revised, as necessary, as part of a subsequent FSAR update.

STD SUP 3.10-1

Section 17.5 defines the Quality Assurance Program requirements that are applied to equipment qualification files, including requirements for handling safety-related quality records, control of purchased material, equipment and services, test control, and other quality related processes.

3.10.4 COL Information

3.10.4-1-A Dynamic Qualification Report

STD COL 3.10.4-1-A

This COL item is addressed in Section 3.10.1.4.