

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

June 4, 2020

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Serial No.: 20-173
NRA/ENC: R0
Docket Nos.: 50-338
50-339
License No.: NPF-4
NPF-7

VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION ENERGY VIRGINIA)
NORTH ANNA POWER STATION UNITS 1 AND 2
INSERVICE TESTING PROGRAM PLAN FOR PUMPS, VALVES, AND SNUBBERS
FIFTH 10-YEAR INTERVAL UPDATE FOR UNITS 1 AND 2
REQUEST FOR ALTERNATIVES TO REQUIREMENTS OF ASME OM CODE
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

By letter dated January 22, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20028D492), Virginia Electric and Power Company (Dominion Energy Virginia) submitted the North Anna Power Station Units 1 (NAPS1) and 2 (NAPS2) Inservice Testing (IST) Programs for Pumps, Valves, and Snubbers for the fifth 10-year IST interval beginning on December 15, 2020 for both units.

10 CFR 50.55a(a)(1)(iv) refers to the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), 2012 Edition. The most recent revision to the ASME OM Code became effective on August 17, 2017 and applies to the fifth 10-year IST interval for NAPS1 and NAPS2. The IST Programs for both units were updated to incorporate the most recent revision to the ASME OM Code. Included in the updated IST Programs submitted for the fifth 10-year interval were seven relief requests requiring Nuclear Regulatory Commission (NRC) review and approval before implementation.

By email dated April 21, 2020, NRC staff indicated that additional information was necessary to complete their review of the requested alternatives (ML20113A579). Dominion Energy Virginia held a clarification conference call with NRC staff on May 5, 2020. The NRC requested a response to their request for additional information (RAI) by June 4, 2020. The Enterprise Project Identifier (EPID) referenced for this request is L-2020-LLR-0023.

Dominion Energy Virginia's response to the NRCs RAI is contained in the Enclosure to this letter.

Please contact Erica N. Combs at 804-273-3386 if you have any questions regarding this submittal.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark D. Sartain", followed by a horizontal line.

Mark D. Sartain
Vice President – Nuclear Engineering & Fleet Support

Enclosure: Response to NRC Request for Additional Information

Commitments made by this letter: None

References:

1. Letter from Dominion Energy Virginia to NRC, "North Anna Power Station Units 1 and 2 Inservice Testing Program Plan for Pumps, Valves, and Snubbers, Fifth 10-Year Interval Update for Units 1 and 2, Request for Alternatives to Requirements of ASME OM Code," dated January 22, 2020. [ADAMS Accession No. ML20028D492]
2. Letter from NRC to Dominion Energy Virginia, "Draft RAI North Anna Fifth 10-Year Interval Relief Request L-2020-LLR-0023)," dated April 21, 2020. [ADAMS Accession No. ML20113A579]

cc: Regional Administrator, Region II (w/o attachments)
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North Anna Power Station

ENCLOSURE 1

Response to NRC Request for Additional Information

**Virginia Electric and Power Company
(Dominion Energy Virginia)
North Anna Power Station Unit 1 and Unit 2**

**Response to Request for Additional Information
Related to North Anna Power Station Units 1 and 2
Fifth 10-Year Interval Inservice Testing Program**

By letter dated January 22, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20028D492), Virginia Electric and Power Company (Dominion Energy Virginia) submitted the North Anna Power Station Units 1 (NAPS1) and 2 (NAPS2) Inservice Testing (IST) Programs for Pumps, Valves, and Snubbers for the fifth 10-year IST interval beginning on December 15, 2020 for both units.

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The NRC questions and Dominion responses are provided below.

1. NRC RAI Question No.1

The licensee states that Request P-1 is intended to obtain NRC authorization to implement Code Case OMN-22, "Smooth Running Pumps," for specific pumps at North Anna Units 1 and 2.

*In describing the implementation of Code Case OMN-22, Request P-1 specifies: "If the measured parameters are outside the normal operating range or are determined by analysis to be trending toward an unacceptable degraded state, appropriate actions are taken that **may** [emphasis added] include:*

Increased monitoring to establish rate of change,

*Review of component specific information to identify cause, and
Removal of the pump from service to perform maintenance.”*

The NRC staff does not consider these provisions in Request P-1 to be consistent with the guidance in Code Case OMN-22.

*For example, Code Case OMN-22 states: “If a PdM [Predictive Maintenance] Supplemental Monitoring activity identifies a parameter outside the normal operating range or identifies a trend toward an unacceptable degraded state, action **shall be taken** [emphasis added] to:*

- (1) Identify and document the condition in the corrective action program established in accordance with the Owner's Quality Assurance Program,*
- (2) Increase monitoring to establish the rate of change of the monitored parameter,*
- (3) Review component-specific information to identify the degradation cause,*
- (4) Develop a plan to remove the pump from service to perform maintenance prior to significant performance degradation, and*
- (5) Address potential common cause issues applicable to other pumps based on the results of the analysis of the specific pump performance.”*

The NRC staff requests that the licensee describe its intent to implement the provisions of Code Case OMN-22 with respect to corrective actions or provide justification for its planned approach.

Dominion Energy Response

North Anna will follow the guidance provided in Code Case OMN-22. If a PdM supplemental monitoring activity identifies a parameter outside the normal operating range or identifies a trend toward an unacceptable degraded state, action shall be taken to:

- (1) Identify and document the condition in the corrective action program established in accordance with North Anna's quality assurance program,
- (2) Increase monitoring to establish the rate of change of the monitored parameter,
- (3) Review component-specific information to identify the degradation cause,
- (4) Develop a plan to remove the pump from service to perform maintenance prior to significant performance degradation, and

- (5) Address potential common cause issues applicable to other pumps based on the analysis of the specific pump performance.

2. NRC RAI Question No. 2

The licensee states that Request P-2 is submitted under 10 CFR 50.55a(z)(1), "Acceptable level of quality and safety." However, Section 5.0, "Proposed Alternatives and Bases," of Request P-2 specifies: "Using these provisions of the relief request as an alternative to the specific requirements of ISTB-3400 and Table ISTB-3400-1 identified above, which have been identified to be impractical, will provide adequate indication of pump performance."

The NRC regulations in 10 CFR 50.55a(f)(5)(iii), "IST program update: Notification of impractical IST Code requirements," state: "If the licensee has determined that conformance with certain Code requirements is impractical for its facility, the licensee must notify the Commission and submit, as specified in §50.4, information to support the determination."

The NRC staff requests that the licensee explain the basis for submitting Request P-2 under 10 CFR 50.55a(z)(1) rather than 10 CFR 50.55a(f)(5)(iii).

Dominion Energy Response

Upon further review North Anna concurs with the NRC Staff's assessment of the content in Request P-2 and requests that it be submitted under 10 CFR 50.55a(f)(5)(iii). A comparable request was previously submitted under 10 CFR 50.55a(f)(5)(iii), reviewed and approved in support of the 4th IST Program testing interval.

3. NRC RAI Question No. 3

In Request S-1, the licensee proposes to implement ASME OM Code Case OMN-13 (Revision 2), "Performance-Based Requirements for Extending Snubber Inservice Visual Examination Interval at LWR Power Plants," as part of its application of the 2012 Edition of the ASME OM Code in the Fifth Interval of its IST Program. On March 16, 2020, the Federal Register (85 FR 14736) reported the modification of 10 CFR 50.55a to incorporate by reference NRC Regulatory Guide (RG) 1.192 (Revision 3), "Operation and Maintenance Code Case Acceptability, ASME OM Code," (ADAMS Accession No. ML19128A261), which accepts the use of Code Case OMN-13 (Revision 2) where implemented in accordance with Table 2, "Conditionally

Acceptable OM Code Cases.” Based on this update to the NRC regulations, licensees may implement Code Case OMN-13 (Revision 2) without submitting an alternative request where the Code Case is implemented in accordance with RG 1.192 (Revision 3). Please advise if you prefer that the NRC staff continue to review Request S-1 and prepare a safety evaluation, or if you prefer to withdraw Request S-1.

Dominion Energy Response

Following the publication of Regulatory Guide 1.192, Revision 3, North Anna prefers to withdraw Request S-1.

4. NRC RAI Question No. 4

The Fifth 10-year IST Interval Update includes several Station Technical Positions for the IST Program at North Anna Units 1 and 2. Some of those technical positions appear to involve deviations from the provisions of the ASME OM Code or the conditions in 10 CFR 50.55a. For example, Technical Position No. TP-04, “Obturator Verification,” indicates that the obturator verification interval might apply the leak test interval allowed by 10 CFR Part 50, Appendix J, and extend beyond the 2-year interval specified in paragraph ISTC-3700, “Position Verification Testing,” in the ASME OM Code, Subsection ISTC. Please describe the bases for specifying these planned activities as technical positions, and not as deviations from the ASME OM Code or 10 CFR 50.55a conditions. As appropriate, please submit requests for relief from or alternatives to the ASME OM Code or 10 CFR 50.55a conditions, in accordance with 10 CFR 50.55a, for those technical positions that involve deviations from the OM Code or 10 CFR 50.55a conditions.

Dominion Energy Response

TP-04 was originally authored based on the wording of the 10 CFR 50.55(a) paragraph (b)(3)(xi) condition as proposed in draft NUREG-1482, Revision 3. The final wording of paragraph (b)(3)(xi) differs from that issued in draft NUREG-1482, Revision 3. TP-04 will be revised such that it meets the requirements of (b)(3)(xi) as published in the CFR.

The fifth interval IST program plans for North Anna Unit 1 and Unit 2, which include the technical positions referenced in RAI EMIB-4, were provided to the NRC for information purposes to facilitate review of the associated request for alternatives to requirements of the ASME OM Code, 2012 edition. North Anna recognizes the

regulatory program plan reviews performed during development of the fifth interval Safety Evaluation do not invoke a requirement to seek prior NRC approval of future program plan revisions provided that those changes are bounded by ASME OM Code of record and CFR requirements.