

NRR-PMDAPem Resource

From: Hall, Randy
Sent: Friday, July 21, 2017 4:58 PM
To: Craig D Sly (Generation - 6)
Cc: Diane Aitken (Generation - 6) (diane.aitken@dominionenergy.com); Tom.Huber@dom.com
Subject: North Anna Power Station, Units 1 and 2 - Request for Additional Information, Regarding Proposed Inservice Inspection Alternatives N1-I4-NDE-010 and N2-I4-NDE-005 (CAC Nos. MF9534 and MF9535)
Attachments: REQUEST FOR ADDITIONAL INFORMATION RR N1-I4-NDE-010 and N2-I4-NDE-005.docx

July 21, 2017

Mr. Craig Sly
Manager, Nuclear Regulatory Affairs
Virginia Electric and Power Company

Dear Mr. Sly,

By letter dated March 27, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17090A429), as supplemented by letter dated June 5, 2017 (ADAMS Accession No. ML17160A263), Virginia Electric and Power Company (Dominion, the licensee) requested relief from the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI regarding the inspection program for the fourth 10-year inspection interval at North Anna Power Station (NAPS), Units 1 and 2. Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(z), the licensee proposed in Alternatives N1-I4-NDE-010 and N2-I4-NDE-005, revision of the inspection requirements in the inspection program for ASME Code, Section XI, Category B-F, "Pressure Retaining Dissimilar Metal Welds in Vessel Nozzle," from 10 years to 20 years based on Topical Report (TR) WCAP-17236-NP-A, "Risk-Informed Extension of the Reactor Vessel Nozzle Inservice Inspection [ISI] Interval" (ADAMS Accession No. ML12215A043).

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the information provided by the licensee regarding the subject requests for alternative, and has determined that additional information is needed to complete its evaluation, as stated in the attached Request for Additional Information (RAI).

Please let me know if you would like a clarification call regarding the attached RAI. The goal of a call would be to ensure that the RAI questions are understandable, the regulatory basis for the questions is clear, and to determine whether any of the information requested was previously docketed. Following a clarification call, or your confirmation that a call is not necessary, the staff's RAI will be documented as an Official Agency Record in ADAMS. Dominion is requested to provide a written response to the RAI within 30 days of the date of the clarification call, or your confirmation that a call is not needed.

Sincerely,

**Randy Hall, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
USNRC
(301) 415-4032**

Hearing Identifier: NRR_PMDA
Email Number: 3683

Mail Envelope Properties (Randy.Hall@nrc.gov20170721165800)

Subject: North Anna Power Station, Units 1 and 2 - Request for Additional Information, Regarding Proposed Inservice Inspection Alternatives N1-I4-NDE-010 and N2-I4-NDE-005 (CAC Nos. MF9534 and MF9535)

Sent Date: 7/21/2017 4:58:21 PM

Received Date: 7/21/2017 4:58:00 PM

From: Hall, Randy

Created By: Randy.Hall@nrc.gov

Recipients:

"Diane Aitken (Generation - 6) (diane.aitken@dominionenergy.com)"
<diane.aitken@dominionenergy.com>

Tracking Status: None

"Tom.Huber@dom.com" <Tom.Huber@dom.com>

Tracking Status: None

"Craig D Sly (Generation - 6)" <craig.d.sly@dominionenergy.com>

Tracking Status: None

Post Office:

| Files | Size | Date & Time |
|--|-------------|------------------------|
| MESSAGE | 2335 | 7/21/2017 4:58:00 PM |
| REQUEST FOR ADDITIONAL INFORMATION RR N1-I4-NDE-010 and N2-I4-NDE-005.docx | | |
| 26390 | | |

Options

Priority: Standard

Return Notification: No

Reply Requested: No

Sensitivity: Normal

Expiration Date:

Recipients Received:

REQUEST FOR ADDITIONAL INFORMATION
REQUEST FOR ALTERNATIVE NOS. N1-I4-NDE-010 AND N2- I4-NDE-005
REACTOR PRESSURE VESSEL NOZZLE WELD INSPECTIONS
FOURTH 10-YEAR INSERVICE INSPECTION INTERVAL
NORTH ANNA POWER STATION, UNITS 1 AND 2
VIRGINIA ELECTRIC AND POWER COMPANY
DOCKET NOS. 50-338 AND 50-339
CAC NOS. MF9298 AND MF9299

By letter dated March 27, 2017 (ADAMS Accession No. ML17090A429), as supplemented by letter dated June 5, 2017 (ADAMS Accession No. ML17160A263), Virginia Electric and Power Company (the licensee or Dominion) requested relief from the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI regarding the inspection program for the fourth 10-year inspection interval for North Anna Power Station (NAPS), Units 1 and 2.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(z), Dominion proposed in alternatives N1-I4-NDE-010 and N2-I4-NDE-005 revision of the inspection requirements in the inspection program for ASME Code, Section XI, Category B-F, "Pressure Retaining Dissimilar Metal Welds in Vessel Nozzle," from 10 years to 20 years, based on Topical Report (TR) WCAP-17236-NP-A, "Risk-Informed Extension of the Reactor Vessel Nozzle Inservice Inspection [ISI] Interval" (the TR; ADAMS Accession No. ML12215A043).

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the information provided by Dominion regarding the subject requests for alternative, and has determined that the additional information requested below is needed to complete its evaluation.

RAI-APLB 1

Section 4, "Limitations and Conditions for Acceptance," of TR WCAP-17236-NP-A specifies conditions and limitations that must be addressed by licensees proposing to use its methodology to justify extension of the ISI interval from 10 to 20 years for the ASME Code, Section XI, Category B-F, and B-J RPV nozzle welds that do not contain Alloy 82/182 material.

The third bullet on page 4-3 of the TR requires licensees to address probabilistic risk assessment (PRA) quality in their relief request. The licensee's supplement dated June 5, 2017, provided some of the information needed to address PRA quality for the purposes of the proposed ISI alternatives N1-I4-NDE-010 and N2-I4-NDE-005. Based on the information provided, it appears that PRA quality is being demonstrated without relying on the previously

approved RI-ISI program, because a more current full-scope peer review is available. However, the information provided was insufficient to determine whether the PRA quality requirements were met.

Please clarify which method is proposed for demonstrating PRA quality and provide the necessary additional information as indicated. Either approach (a or b) may be used to demonstrate PRA quality.

a) If Dominion elects to rely on the approved RI-ISI program to demonstrate PRA quality:

Please provide any updated information appropriate for the application since the approved RI-ISI application.

b) Alternatively, Dominion may describe the technical adequacy of the PRA used in the relief request, by addressing the following questions:

- i. Provide additional information on the resolution of the peer review findings in light of this application by:
 1. Specifying how each finding was resolved for those findings which were not documentation-only issues (summarize the changes that were made to address the finding), or
 2. Comparing the peer review results to the acceptance criteria established in Electric Power Research Institute (EPRI) Report 1021467, "Nondestructive Evaluation: Probabilistic Risk Assessment Technical Adequacy Guidance for Risk-Informed In-Service Inspection Programs," (ADAMS Accession No. ML12171A450), as modified by the limitations and conditions of the associated NRC Safety Evaluation (ADAMS Accession No. ML11262A206). Indicate how the peer review findings were resolved if they were not documentation-only issues.
- ii. Indicate whether any updates, other than those described in the response to (i) above, were made to the PRA which are relevant to this application since the peer review described in the supplemental submittal dated June 5, 2017.