



Jul 21, 2026

U.S. Nuclear Regulatory Commission
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Washington, DC 20555

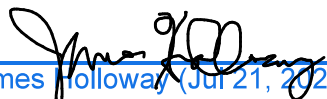
Serial No.	25-308D
NRA/DPJ	R0
Docket No.	50-281
License No.	DPR-37

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNIT 2
ASME SECTION XI INSERVICE INSPECTION PROGRAM
RELIEF REQUESTS FOR LIMITED COVERAGE EXAMINATIONS PERFORMED IN
THE SECOND AND THIRD PERIOD OF THE FIFTH 10-YEAR INSPECTION
INTERVAL RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

By letter dated March 25, 2026 (ADAMS Accession No. ML26084A363), Virginia Electric and Power Company (Dominion Energy Virginia) submitted a relief request for welds that were inspected during the fifth 10-year interval that did not meet the required examination coverage due to impracticality for Surry Power Station, Unit 2. By emails dated June 29, 2026, and July 7, 2026 (ADAMS Accession No. ML26188A271), the U.S. Nuclear Regulatory Commission (NRC) provided a request for additional information (RAI) to assist the NRC staff in completing its review of the proposed relief request. The Dominion Energy Virginia response to the NRC RAIs is provided in the attachment.

Should you have any questions or require additional information, please contact Mr. Daniel P. Johnson at (804) 273-2381.

Respectfully,


[James Holloway \(Jul 21, 2026 17:03:08 EDT\)](#)

James E. Holloway
Vice President – Nuclear Engineering and Fleet Support

Regulatory commitments contained in this correspondence: None

Attachment: Response to NRC Request for Additional Information – Surry Power Station Unit 2 ASME Section XI Inservice Inspection Program Relief Requests for Limited Coverage Examinations Performed in the Second and Third Period of the Fifth 10-Year Inspection Interval

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Attachment

RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION

ASME SECTION XI INSERVICE INSPECTION PROGRAM
RELIEF REQUESTS FOR LIMITED COVERAGE EXAMINATIONS PERFORMED IN
THE SECOND AND THIRD PERIOD OF THE FIFTH 10-YEAR INSPECTION
INTERVAL

**Virginia Electric and Power Company
(Dominion Energy Virginia)
Surry Power Station Unit 2**

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
ASME SECTION XI INSERVICE INSPECTION PROGRAM
RELIEF REQUEST

SURRY POWER STATION UNIT 2

By letter dated March 25, 2026 (ADAMS Accession No. ML26084A363), Virginia Electric and Power Company (Dominion Energy Virginia) submitted a relief request for welds that were inspected during the fifth 10-year interval that did not meet the required examination coverage due to impracticality for Surry Power Station, Unit 2. By emails dated June 29, 2026, and July 7, 2026 (ADAMS Accession No. ML26188A271), the U.S. Nuclear Regulatory Commission (NRC) provided a request for additional information (RAI) to assist the NRC staff in completing its review of the proposed relief request. The Dominion Energy Virginia response to the NRC RAIs is provided in this attachment.

Regulatory Basis:

Pursuant to 10 CFR 50.55a(g)(4), Inservice inspection standards requirement for operating plants, ASME Code Class 1, 2, and 3 components (including supports) must meet the requirements, except the design and access provisions and the preservice examination requirements, as set forth in the ASME Code, Section XI, "Rules for Inservice Inspection [ISI] of Nuclear Power Plant Components," to the extent practical within the limitations of design.

The regulations in 10 CFR 50.55a(g)(5)(iii) state that if licensees determine that conformance with certain ASME Code requirements is impractical, the licensee shall notify the Commission and submit information in support of the determination. Determination of impracticality in accordance with this section must be based on the demonstrated limitations experienced when attempting to comply with the ASME Code requirements during the ISI interval for which the request is being submitted. Pursuant to 10 CFR 50.55a(g)(5)(iv), request for relief made in accordance with this section must be submitted to the NRC no later than 12 months after the expiration of the initial 120-month inspection interval or subsequent 120-month inspection interval for which relief is sought.

The regulation in 10 CFR 50.55a(g)(6)(i), "impractical ISI requirements: Granting of relief," state, in part, that:

The Commission will evaluate determinations under paragraph (g)(5) of this section that Code requirements are impractical. The Commission may grant such relief and may impose such alternative requirements as it determines are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

REQUESTS FOR ADDITIONAL INFORMATION

Question 1

Issue

Relief Request S2-I5-LMT-C02 provides insufficient information (e.g., diagrams and examination coverage calculations) regarding ultrasonic scanning of weld No. 1-05 during the fifth ISI interval for the staff to verify the reported examination coverage.

Request

Provide examination coverage calculation of ultrasonic scanning of weld No. 1-05 in the fifth ISI interval, similar to the scanning diagrams and examination coverage calculation of weld No. 1-04 in the licensee's submittal dated December 12, 2005 (ML053470475) for the inspection performed in the third ISI interval.

Dominion Energy Virginia Response:

General calculations for the weld examination coverages are provided below. Examination volumes were calculated using a 3D CAD program.

For Weld 1-05 (RV Bottom Shell to Bottom Head Circ Weld):

Supplement 4 Examination Volume:

Inner 15% t = 2272.78 in³ (14.30%)
2272.78 – 617.31 = 1655.47 (MAH)
1655.47 / 2272.78 x 100 = 72.84%
2272.78 – 659.74 = 1613.04 (MTH)
1613.04 / 2272.78 x 100 = 70.97%
(72.84 + 70.97) / 2 = 71.91%

Supplement 6 Examination Volume:

Outer 85% t = 13623.13 in³ (85.70%)
13623.13 – 3700.19 = 9922.94 (MAH)
9922.94 / 13623.13 x 100 = 72.84%
13623.13 – 3954.49 = 9668.64 (MTH)
9668.64 / 13623.13 x 100 = 70.97%
(72.84 + 70.97) / 2 = 71.91%

Aggregate:

71.91 x 0.143 = 10.28
71.91 x 0.857 = 61.63
10.28 + 61.63 = 71.9%

Question 2

Issue

The first paragraph in Section 6 of Relief Request S2-I5-LMT-P03 states that "...Preservice ultrasonic examination of RHR HX Weld No. 1-B02 obtained 62.7% weld coverage of the required examination volume with four geometric indications found across various positions around the circumference of the weld..."

Additional information is needed regarding the characterization of the four geometric indications and the weld filler material to determine the impact on structural integrity of weld No. 1-B02.

Request

(a) Provide the dimensions (length and width) of the four geometric indications in weld No. 1-B02.

(b) Discuss the locations of these four geometric indications with respect to the weld volume (e.g., depth of the indications with respect to the weld wall thickness, how far the indications are from the inside and outside surfaces of the weld).

(c) Discuss the acceptance standards that were used to support acceptance of the four geometric indications to remain in service.

(d) Discuss whether the indications are fabrication defects (e.g., lack of fusion, weld slags) or service-induced defects.

(e) Discuss the weld filler metal (e.g., Alloy 82/182 filler metal, E306, E316L).

Dominion Energy Virginia Response:

(a) Lengths and widths were not recorded, since these indications are geometrical reflectors from the channel head divider plates. The "L" dimension was only recorded for the received maximum ultrasonic amplitude. Actual length is not required to be recorded per Dominion Energy Virginia's Nondestructive Examination (NDE) procedures.

(b) The divider plates are attached to the inner diameter (ID) of the shell. They do not penetrate into the weld being examined (1-B02) or the shell thickness. See Figure 4-6 of Relief Request S2-I5-LMT-P03 (page 4 of 5 of UT report ISI-2-UT-23-007).

(c) There are no acceptance standards for geometrical reflectors. The divider plate reflections were verified by drawing, UT angle beam plots, and use of higher UT angles. The recording criteria for geometric indications is a function of whether the exam type was Preservice Inspection (PSI) or Inservice Inspection (ISI). Since this examination was part of PSI, any reflector with an observed amplitude of 20%

Distance Amplitude Correction (DAC) or greater was required to be reported. With the 45° angle, the observed amplitude was 50% DAC and thus the geometric indications were recorded and documented in the report.

(d) The reported geometric reflectors are not defects of any kind. They are reflections from the component geometry design.

(e) The filler metal used was E309 Stainless Steel.

Question 3

Issue

The fourth paragraph in Section 6 of Relief Request S2-I5-LMT-C03 states, in part, that "...The 2- RH-E-1A RHR HX was replaced during the Surry 2 R32 (Fall 2024) outage which was the first outage of the sixth inspection interval for Unit 2..."

As described in Section 7 of the relief request, it is not apparent why the first refueling outage (Fall 2024) of the sixth ISI interval occurred prior to the end date of the fifth ISI interval of May 9, 2025. As stated in the submittal, the S2R31 refueling outage occurred in Spring 2023, and the S2R32 refueling outage occurred in Fall 2024. As such, the subsequent S2R33 outage would have been occurring in Spring 2026.

Request

Clarify why the first refueling outage (Fall 2024) of the sixth ISI interval occurred prior to the end date of the fifth ISI interval on May 9, 2025.

Dominion Energy Virginia Response:

It is important to note that both the 5th and 6th Intervals for Surry Unit 2 were planned as 10-year inspection intervals. This means that they adhere to the requirements of the 2004 Edition of ASME Section XI, IWA-2432, Inspection Program B. Thus, IWA-2430(d) is applicable rather than IWA-2430(c).

The 5th ISI interval was extended by 12 months (one year) from May 9, 2024 to May 9, 2025 as permitted by IWA-2430(d)(1) to allow for completion of ultrasonic testing (UT) of the studs on Loop Stop Valve 2-RC-MOV-2593 during the Surry Unit 2 R32 (Fall 2024) outage. Unexpected changes in UT techniques required an alternative bore probe to be procured to support the valve stud UT. The extension permitted time for the probe to be procured and the UT to be performed during the following outage. Coincidentally, this extension also provided sufficient time to document and submit a limited coverage examination relief request for NRC approval related to Periods 2 and 3 of the 5th ISI Interval at Surry Unit 2.

The 6th ISI interval for Surry Unit 2 start and end dates were not impacted by the extension of the 5th ISI Interval Period 3. The Surry Unit 2 6th ISI Interval started on May 10, 2024 and will end on May 9, 2034. This ultimately results in a one-year overlap of time between the Surry 2 5th and 6th Intervals. All ISI examinations during this overlap, except for the Surry 2 R32 (Fall 2024) 2-RC-MOV-2593 Loop Stop Valve Stud UT exam, were credited to the 6th Interval only. The UT examination of the 2-RC-MOV-2593 Loop Stop Valve Stud performed in Fall 2024 was credited to the 5th Interval only. This approach is acceptable per IWA-2430(d)(2).

Question 4

Issue

Section 7 of Relief Request S2-I5-LMT-C02 states, in part, that "...the fifth ten-year ISI interval for SPS Unit 2, which began May 10, 2014, and ended May 9, 2025. It should be noted that the fifth ten-year interval was extended by a full year without impacting the start date of the subsequent interval..."

It is not apparent why the extension of the fifth ISI interval does not affect the start date of the subsequent interval (the sixth ISI interval). The NRC staff notes that the start and end dates of an ISI interval are regulatorily significant because licensees must submit request for weld examination coverage relief no later than 12 months after the expiration of the ISI interval per 10 CFR 50.55a(g)(5)(iv). In addition, subarticle IWA-2430(c) of the ASME Code, Section XI, specifies the limitations on the extension of an ISI interval and associated examinations. Specifically, subarticle IWA-2430(c)(1) requires that "...Adjustments shall not cause successive intervals to be altered by more than 1 year from the original pattern of intervals..."

Request

- (a) Clarify why and how the extension of the fifth ten-year interval does not affect the start date of the sixth ISI interval.*
 - (b) Discuss whether the duration of the fifth and sixth ISI intervals satisfies IWA-2430(c) of the ASME Code, Section XI.*
 - (c) Provide the starting and end dates of the sixth ISI interval.*
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Dominion Energy Virginia Response:

- (a) The Surry Unit 2 5th ISI Interval was extended in accordance with IWA-2430(d)(1), which states that extension of an interval does not require successive intervals to be revised. See Dominion Energy Virginia's Response to RAI Question 3 for additional discussion.*

- (b) It is important to note that both the 5th and 6th Intervals for Surry Unit 2 were planned as 10-year inspection intervals. This means that they adhere to the requirements of the 2004 Edition of ASME Section XI, IWA-2432, Inspection Program B. Thus, IWA-2430(d) is applicable rather than IWA-2430(c). The durations of the 5th and 6th 10-year ISI intervals satisfy the corresponding requirement of IWA-2430(d)(1).
- (c) The Surry Unit 2 6th Interval started on May 10, 2024, and will end on May 9, 2034. There are currently no planned extensions for the Surry Unit 2 6th Interval.