



Program Management Office
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PWROG-19047-P/NP, Revision 0
Project Number 99902037

May 27, 2020

OG-20-167

U.S. Nuclear Regulatory Commission
Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Subject: PWR Owners Group
Submittal of PWROG-19047-P/NP, Revision 0, “North Anna Units 1 and 2 Reactor Vessels Low Upper-Shelf Fracture Toughness Equivalent Margin Analysis” (PA-MS-1481)

Reference 1: NUREG/CR-5729, “Multivariable Modeling of Pressure Vessel and Piping J-R Data,” May 1991.

The purpose of this letter is to submit PWROG-19047-P/NP, Revision 0, “North Anna Units 1 and 2 Reactor Vessels Low Upper-Shelf Fracture Toughness Equivalent Margin Analysis” to support the North Anna Units 1 and 2 Subsequent License Renewal (SLR) application as requested during the meeting held on April 9, 2020, between Dominion and the NRC (Accession Number ML20104A039 contains the NRC meeting summary).

The purpose of this topical report (TR) is to document the equivalent margins analysis (EMA) for the North Anna Units 1 and 2 reactor vessel (RV) inlet and outlet nozzle Rotterdam welds, nozzle forgings and nozzle belt forgings (a.k.a., upper shell forgings). These locations were chosen due to the potential that their upper-shelf energy (USE) maybe less than the 50 ft-lb limit at 80-years (72 EFPY) for SLR. Two forging locations were determined to be less than or equal to the 50 ft-lb limit at 80-years (72 EFPY) and the equivalent margin analysis (EMA) for these locations utilized the multivariable model for RPV base metal contained in Reference 1.

The PWROG requests that the NRC review the TR for the two forging locations that were determined to be less than or equal to the 50 ft-lb limit at 80-years (72 EFPY).

As Enclosures 1 and 2 contain information proprietary to Westinghouse Electric Company LLC (“Westinghouse”) and Framatome Inc., the information contained herein is supported by two Affidavits: one each signed by Westinghouse and Framatome Inc., the owners of the information. The Affidavits set forth the basis on which the information may be withheld from public disclosure by the Nuclear Regulatory Commission (“Commission”) and addresses with specificity the considerations listed in paragraph (b)(4) of 10CFR Section 2.390 of the Commission’s regulations.

Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse and/or Framatome Inc. be withheld from public disclosure in accordance with 10 CFR Section 2.390 of the Commission's regulations. Each affidavit should be consulted to identify the appropriate justifications for withholding of the respective information.

Correspondence with respect to the copyright or proprietary aspects of the items listed above or the supporting Westinghouse Affidavit should reference CAW-20-5039 and should be addressed to Camille T. Zozula, Manager, Infrastructure & Facilities Licensing, Westinghouse Electric Company, 1000 Westinghouse Drive, Suite 165, Cranberry Township, Pennsylvania 16066.

Correspondence with respect to the copyright or proprietary aspects of the item listed above or the supporting Framatome Inc. Affidavit should be addressed to Philip Opsal, OF-34, Framatome Inc., 3315 Old Forest Road, Lynchburg, VA 24501.

TR Classification: As discussed above, this TR addresses the multivariable modeling of the Pressure Vessel per Reference 1 for the two forging locations at or below the 50 ft-lb limit at 80-years (72 EFPY). Additionally, the J-integral resistance Model 6B is used for some locations where the upper shelf energy was determined to be greater than 50 ft-lbs. These were evaluated proactively in this EMA for asset management considerations.

Specialized Resource Availability: This TR is being submitted to the NRC for review and approval so that the NRC approved version can be utilized for performing plant-specific evaluations of the equivalent margins analyses.

This letter transmits PWROG-19047-P Revision 0 (Enclosure 1), and PWROG-19047-NP (Enclosure 2). Notarized Affidavits for Withholding proprietary information are provided as Enclosures 3 and 4.

Applicability: This TR is applicable to the reactor vessels for North Anna Units 1 and 2 add discussed in the TR.

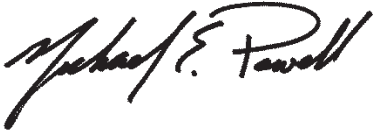
The PWROG requests that the NRC complete their review of the TR by August 15, 2020.

Correspondence related to the non-proprietary transmittal should be addressed to:

Mr. W. Anthony Nowinowski, Program Manager
PWR Owners Group, Program Management Office
Westinghouse Electric Company
1000 Westinghouse Drive, Suite 172
Cranberry Township, PA 16066

If you have any questions, please do not hesitate to contact me at (602) 999-2080 or Mr. W. Anthony Nowinowski, Program Manager of the PWR Owners Group, Program Management Office at (412) 374-6855.

Sincerely yours,



Michael Powell, Chief Operating Officer and Chairman
PWR Owners Group

MP:JPM:am

- Enclosure 1: (One Copy) PWROG-19047-P, Revision 0, "North Anna Units 1 and 2 Reactor Vessels Low Upper-Shelf Fracture Toughness Equivalent Margin Analysis" (Proprietary)
- Enclosure 2: (One copy) PWROG-19047-NP, Revision 0, "North Anna Units 1 and 2 Reactor Vessels Low Upper-Shelf Fracture Toughness Equivalent Margin Analysis" (non-proprietary)
- Enclosure 3: Westinghouse Affidavit for Withholding Proprietary Information, CAW-20-5039
- Enclosure 4: Framatome Affidavit for Withholding Proprietary Information

cc: PWROG PMO
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