

10 CFR 50.55a

March 2, 2018

JAFP-18-0014

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

James A. FitzPatrick Nuclear Power Plant  
Renewed Facility Operating License No. DPR-59  
NRC Docket No. 50-333

Subject: Submittal of Relief Request JAF-I5R-05 Concerning Nozzle-to-Vessel Weld and Inner Radii Examinations (Use of Code Case N-702)

- References:
- 1) Letter from J. Barstow (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Submittal of Relief Request JAF-I5R-05 Concerning Nozzle-to-Vessel Weld and Inner Radii Examinations (Use of Code Case N-702)," dated September 29, 2017
  - 2) Email from B. Venkataraman (U.S. Nuclear Regulatory Commission) to T. Loomis and C. Williams (Exelon Generation Company, LLC), "FitzPatrick - Request for Additional Information Re: Relief Request: JAF-15R-05R, JAF-15R-05 Concerning Nozzle-to-Vessel Weld and Inner Radii Examinations (Use of Code Case N-702) (EPID: L-2017-LLR-0093)," dated February 2, 2018

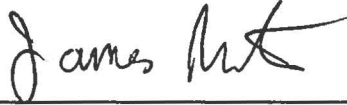
In the Reference 1 letter, Exelon Generation Company, LLC (Exelon) requested relief from the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components." Relief Request JAF-I5R-05 proposed an alternative to the requirements contained in Table IWB-2500-1 concerning nozzle-to-vessel weld and nozzle inner radii examination requirements.

In the Reference 2 email, the U.S. Nuclear Regulatory Commission requested additional information. Attached is our response.

Relief Request JAF-I5R-05 Concerning  
Nozzle-to-Vessel Weld and Inner Radii  
Examinations (Use of Code Case N-702)  
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No regulatory commitments are contained in this letter. Should you have any questions concerning this letter, please contact Tom Loomis at (610) 765-5510.

Sincerely,

A handwritten signature in black ink, appearing to read "James Barstow", is written above a horizontal line.

James Barstow  
Director - Licensing & Regulatory Affairs  
Exelon Generation Company, LLC

Attachment: Response to Request for Additional Information

cc: Regional Administrator, NRC Region I  
USNRC Senior Resident Inspector, NRR  
USNRC Project Manager, NRR

**Attachment**

Response to Request for Additional Information



March 1, 2018

Report No. 1800152.401.R0

Quality Program: ☒ Nuclear ☐ Commercial

Subject: Normal Operating Probability of Failure for Code Case N-702 Using VIPERNOZ

SI Calculation No. 1700858.301 Revision 1 determined that probability of failure (PoF) per reactor year due to a Low Temperature Over Pressure (LTOP) event for the RPV nozzle-to-shell-weld and RPV nozzle blend radii in the FitzPatrick reactor recirculation inlet (N2) nozzles are below the acceptance criterion of  $5 \times 10^{-6}$  per year. The work was performed using the same methodology as in BWRVIP-108, which is the technical basis for ASME Code Case N-702 and similar to the work in BWRVIP-05.

In the NRC staff's request for additional information (RAI), sent February 2, 2018 (ADAMS Accession No. ML18033A139), the following information was requested for the staff to complete their review for Exelon's Relief Request JAF-I5R-05:

- The NRC staff requests the licensee to report the PoF values for LTOP and normal operation or discuss how the PoF values for LTOP are more limiting than those for normal operation.

In response to the RAI, the PoF due to LTOP and normal operation from 1700858.301 Revision 1 are provided herein for both the RPV nozzle-to-shell-weld and RPV nozzle blend radii in the FitzPatrick N2 nozzles. The maximum PoF per year due to an LTOP event is  $3.0 \times 10^{-9}$ , and the maximum PoF per year due to normal operation is  $< 8.0 \times 10^{-9}$ . The LTOP PoF includes the LTOP event occurrence of  $1 \times 10^{-3}$ . These PoFs are more than three orders of magnitude below the acceptance criterion of  $5 \times 10^{-6}$  per year.

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