



10 CFR 50.55a

JAFP-19-0009

January 15, 2019

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: End of Interval Relief Request Associated with the Fourth Ten-Year Inservice Inspection (ISI) Interval

- References:
- 1) Letter from J. Barstow (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "End of Interval Relief Request Associated with the Fourth Ten-Year Inservice Inspection (ISI) Interval," dated July 26, 2018
  - 2) Email from B. Venkataraman (U.S. Nuclear Regulatory Commission) to T. Loomis (Exelon Generation Company, LLC), "FitzPatrick- REQUEST FOR ADDITIONAL INFORMATION Re: Relief Request No. 14R-22, for fourth 10-Year Inservice Inspection Interval (EPID:L-2018-LLR-0103)," dated December 19, 2018

In the Reference 1 letter, in accordance with 10 CFR 50.55a, "Codes and standards," paragraph (g)(5)(iii), Exelon Generation Company, LLC (Exelon), requested relief from the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components." This relief request applied to the fourth ten-year Inservice Inspection (ISI) interval, which concluded on July 31, 2017, for the James A. FitzPatrick Nuclear Power Plant. The fourth ten-year ISI interval complied with the ASME Boiler and Pressure Vessel Code, Section XI, 2001 Edition with 2003 Addenda.

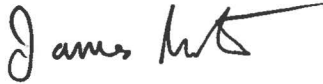
In the Reference 2 email, the U.S. Nuclear Regulatory Commission Staff requested additional information. Attached is our response.

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There are no regulatory commitments in this letter.

If you have any questions concerning this letter, please contact Tom Loomis at (610) 765-5510.

Respectfully,



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

Attachment: Response to the Request for Additional Information - Relief Request I4R-22

cc: Regional Administrator, Region I, USNRC  
USNRC Senior Resident Inspector, JAFNPP  
Project Manager USNRC, JAFNPP  
A. L. Peterson, NYSERDA

**Attachment**

**Response to the Request for Additional Information - Relief Request I4R-22**

**Question:**

**RAI-1**

(a) Consistent with the criterion addressed in Note 3 of Table 1 of the Code Case N-578-1, the staff requests that the licensee provide a summary of its engineering evaluation for accepting the examination coverage that is less than essentially 100% for the welds in the table below. This evaluation should include justification for not examining additional or alternative accessible welds in different categories e.g., B-F and B-J, in order to supplement the inspection results (with reduced area/volume of coverage) obtained from the examinations performed on the welds in the table below during the fourth 10-year ISI interval. If inspections of B-F and B-J welds that are similar to the subject welds (with respect to susceptibility to IGSCC) were performed during the fourth 10-year ISI interval, provide a summary of the inspection results.

**Response:**

For the RI-ISI weld population, Examination Category R-A welds submitted in this relief request, a case by case review was performed to determine whether additional or alternative welds could have been examined to supplement the reduced volumetric coverage examination. It was determined that there were no other welds to select that would have resulted in better coverage. This determination was made based on comparison of configurations, delta core damage frequency (CDF) values, the systems involved, and inspection history. During outages, when situations were identified where coverage was an issue, personnel reviewed the systems for alternatives.

In addition to the above, the James A. FitzPatrick Nuclear Power Plant began using Hydrogen Water Chemistry controls in 1988, Noble Metals Chemical Application in 1999, and has been using Online Noble Chemical Addition since 2011.

**Question:**

(b) Provide the results of the previous examination coverage that was obtained for the welds as shown in the table below during the third 10-year ISI interval.

**Response:**

For the Intergranular Stress Corrosion Cracking (IGSCC) augmented inspection population (147 total welds), the examination history shows satisfactory results for the fourth interval. Two welds were identified during the fourth interval that required weld overlays. For welds included in the augmented inspection population, the James A. FitzPatrick Nuclear Power Plant utilizes the Hydrogen Water Chemistry/Noble Metals Chemical Application inspection interval and the Normal Water Chemistry inspection interval such that each Hydrogen Water Chemistry/Noble Metals Chemical Application treated weld is examined at least once every ten years and each Normal Water Chemistry weld is examined at least once every six years.

**Additional Information Associated with this Relief Request:**

Attached are corrections associated with Sequence Number 1.27 (weld Number BH1-A) and Sequence Number 1.28 (Weld Number N3-A). These welds should be listed as "No" for Appendix VIII Qualified Exams. Attached is the corrected welds.

**Table I4R-22.1**  
**James A. FitzPatrick Nuclear Power Plant**  
**List of Components with Limited Examination Coverage**

Sequence Number and Weld Identification Number	Class, Category and Item No.	Weld Description	Material 1 and Product Form	Material 2 Weld	Material 3 and Product Form	Examination Code Coverage Obtained <sup>1</sup>	Examination Limitations and Results	Applicable Figures and Tables	Normal Operating Conditions (Pressure / Temperature)	Appendix VIII Qualified Exam
1.27 BH1-A	Class 2 C-A C1.20	West CRD Scram Discharge Instrument Volume Tank "A" Shell-to-Bottom Head	Head: Carbon Steel – Dished Head - SA516 Gr. 70	Weld: Ferritic Steel	Shell: 24" Schedule 80 Pipe, SA-106 Gr. C	UT = 42.10%	Limitations From Shell Side Due to Bottom Head Configuration, Support Brackets and Weldolets with One Recordable Indication Dispositioned as an Isolated Geometric Root Reflector with No Through Wall Extent	Location Figure 1-6, Figures 1-27-1 to 1-27-4	1040 psig / 550 F	No
1.28 N3-A	Class 2 C-B C2.21	20" A RHR Heat Exchanger Nozzle-to-Head Weld	Nozzle: Carbon Steel – SA106 GR B Pipe	Weld: Ferritic Steel	Head: Carbon Steel – SA516 Gr. 70 Plate	UT = 73.10% MT = 100%	Limitation No Axial Scan from Nozzle Side of Weld and Limited Scan Length of 2" Due to Adjacent N7-A Nozzle with No Recordable Indications	Location Figure 1-7, Figure 1-28-1	400 psig / 450 F	No