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10 CFR 50.90
10 CFR 50.91(a)(5)

JAFP-19-00XX

November 7, 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: Response to Request for Supplemental Information by the Office of Nuclear Reactor Regulation to support Review of a License Amendment Request to Revise the Allowable Value for Reactor Water Cleanup (RWCU) System Primary Containment Isolation

References:

1. Letter from J. Barstow (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "License Amendment Request – Proposed Change to Technical Specifications to Revise the Allowable Value for Reactor Water Cleanup (RWCU) System Primary Containment Isolation" (ML19248B085) dated September 5, 2019
2. Electronic mail from S. Lee (Project Manager, U.S. Nuclear Regulatory Commission) to C. Williams (Exelon), "FitzPatrick Supplemental Information Needed for Acceptance: Revise Allowable Value for Reactor Water Cleanup System Primary Containment Isolation (EPID L-2019-LLA-0190)," October 18, 2019. 7:38 AM
3. Letter from Guy S. Vissing, Senior Project Manager, Section 1, (U.S. Nuclear Regulatory Commission) to Mr. James Knubel, Chief Nuclear Officer, Power Authority of the State of New York, "James A. FitzPatrick Nuclear Power Plant – Amendment for Technical Specification change regarding Automatic Transient Without SCRAM Recirculation Pump Trip/Alternate Rod Insertion Setpoint Change (TAC NO. MA8171)," October 10, 2000

By letter dated September 5, 2019, (Reference 1) Exelon Generation Company, LLC (Exelon) requested a change to the James A. FitzPatrick (JAF) Technical Specifications (TS) in accordance with 10 CFR 50.90. The proposed amendment request would revise the TS Allowable Value for Reactor Water Clean Up (RWCU) isolation on low Reactor Pressure Vessel (RPV) water level from Level 3 (≥177 inches) to Level 2 (≥107 inches).

By electronic mail dated October 18 (Reference 2), the NRC identified areas where additional information was necessary to complete the acceptance review.

Attachment 1 to this letter contains the NRC's request for supplemental information immediately followed by Exelon's response.

Exelon has reviewed the information supporting a finding of no significant hazards consideration and the environmental consideration provided to the NRC in Reference 1. The information attached to this letter does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards consideration. Furthermore, the information attached to this letter does not affect the bases for concluding that neither an environmental impact statement nor an environmental assessment needs to be prepared in connection with the proposed amendment.

There are no commitments contained in this response.

If you should have any questions regarding this submittal, please contact Christian Williams at 610-765-5729.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 7th day of November 2019.

David T. Gudger
Acting Director, Licensing & Regulatory Affairs
Exelon Generation Company, LLC

Attachments: 1. Request for Supplemental Information and Exelon Response

Enclosures: 1. JAF Calculation – JAF-CALC-NBI-00205 R0
2. JAF Calculation – JAF-CALC-NBI-00206 R0

cc: Regional Administrator – NRC Region I w/ attachments
NRC Senior Resident Inspector – JAF "
NRC Project Manager, NRR – JAF "
A.L. Peterson, NYSERDA "

bcc:	Senior Vice President – Mid-Atlantic Operations	w/o attachments
	Site Vice President – JAF	“
	Vice President, Licensing and Regulated	“
	Plant Manager – JAF	“
	Director, Operations – JAF	“
	Director, Site Engineering – JAF	“
	Director, Site Training – JAF	“
	Manager, Regulatory Assurance – JAF	w/ attachments
	Senior Manager, Licensing, KSA	“
	Manager, Fuels, KSA	“
	C. Williams, KSA	“
	Commitment Coordinator – KSA	“
	Correspondence Control Desk – KSA	“

ATTACHMENT 1

SUPPLEMENTAL INFORMATION NEEDED J. A. FITZPATRICK LICENSE AMENDMENT REQUEST TO REVISE THE TECHNICAL SPECIFICATIONS ALLOWABLE VALUE FOR INITIATING REACTOR WATER CLEANUP SYSTEM ISOLATION ON REACTOR WATER LEVEL 2 RATHER THAN LEVEL 3

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By letter dated September 5, 2019 (ADAMS Accession No. ML19248B085), Exelon Generation submitted a license amendment request (LAR) to revise the Technical Specifications (TS) Allowable Value (AV) for the reactor water cleanup (RWCU) system primary containment isolation. NRC staff has reviewed the LAR and determined the following additional information is needed to start the review.

1. Please provide the calculation or a summary of the calculation for the revised allowable value for the RWCU system isolation. If a summary of the calculation is provided it should include the analytical value, the AV, the total loop accuracy, the limiting setpoint, the nominal setpoint, and the As-Left Tolerance and As-Found Tolerance values used for performing calibration surveillances. In addition, please address how the random and bias errors were identified, estimated, and combined. Provide a list of the assumptions and the basis for the assumptions used as part of the summary of the calculation.

   Exelon Response: Enclosures 1 and 2 of this letter are the requested calculations. The specific requested information is included in each of these two calculations.

2. Please explain the methodology used in the calculation and a brief explanation of how the calculation meets the guidance within Regulatory Guide 1.105 and RIS 2006-17. Is Fitzpatrick committed to TSTF-493? If so explain how the guidance of TSTF-493 has been implemented in the calculation. If not, please describe how the setpoint will be maintained and performance monitoring will be conducted using the As-Left Tolerance and As-Found Tolerance Values.

   Exelon Response: The proposed Allowable Value is based on new setpoint and uncertainty calculations. These calculations utilize the methodology as described within the Technical Specification Bases Revision 40 section B.3.3.6.1 and as referenced within section B.3.3.5.2. This methodology was reviewed by the NRC during the JAF conversion to Improved Technical Specifications and utilizes an Analytical Limit that ensures the Safety Limit is not exceeded. The Nominal Trip Setpoint is selected to assure the proposed Allowable Value is not exceeded. RWCU isolation function will be performed using the JAF ATTS thus the

instrument loop error and calibration limits (As Found and As Left) are calculated consistent with the other JAF ATTS uncertainty calculations.

JAF has not yet adopted Technical Specification Task Force (TSTF) Traveler TSTF-493. Therefore, the applicable notes from the TSTF will not be added to the JAF Technical Specifications.

3. Fitzpatrick uses more than one set of Analytical Limits, Limiting Setpoints, and Allowable Values that have been identified/labeled as Reactor Water Level Low-Low, or Level 2 (L2).

   a. Please provide a brief description as to how plant operators and maintenance staff are trained to use and maintain the Level 2 setting using different level values represented by same level setting name designation (i.e. Level 2), so as to avoid confusion by the operators during normal or plant transient conditions.

      Exelon Response: Operations and Maintenance are required to reference procedures when operating the plant or performing any maintenance. The use of procedures is reinforced during training and daily through supervisory observations. The process eliminates possible confusion with different level setpoints as the applicable level 2 for each application is specifically spelled out in applicable procedures.

   b. Please provide the available precedencies that may have used more than one nominal setpoint value for Reactor Level Low-Low or L2.

      Exelon Response: James A. FitzPatrick received approval for the alternate Low-Low (L2) setpoint through Amendment 264 which was issued on October 10, 2000 (Reference 3). A review of Exelon Plant Technical Specifications (TS) identified one (1) other plant which maintained more than one (1) nominal setpoint value for Reactor Level Low-Low or L2. LaSalle Station maintains High Pressure Core Spray (HPCS) Level 2 isolation setpoint at an allowable value of $\geq$ -83 inches (TS Table 3.3.5.1-1). In contrast, Surveillance Requirement (SR) 3.3.4.2.3 (Anticipated Transient without SCRAM (ATWS)) defines the Level 2 isolation setpoint as $\geq$ -54 inches. Additionally, the LaSalle Reactor Water Cleanup (RWCU) isolation setpoint for Level 2 is $\geq$ -58 inches (TS Table 3.3.6.1-1).

   c. Describe why two different nominal set point values are being used for the Reactor Water Level Low-Low Level 2 setting, and briefly explain the bases for the results of the different analyses that have been performed for determining the different appropriate analytical limits and resulting allowable values for these settings. Finally, please explain why the lower

of these two values was selected for initiating the RWCU isolation function.

Exelon Response: Analyses supporting JAF operation utilize two values for the RPV Level 2 Analytical Limit dependent on application. The higher of the two values is used for initiation of the High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) Systems, while the lower value is used for Anticipated Transient Without Scram-Recirculation Pump Trip (ATWS-RPT) initiation (as well as for initiation of Alternate Rod Injection, ARI). Use of staggered limits (and associated setpoints) provides an opportunity for HPCI and/or RCIC to restore RPV water level during slow moving transients without further actions that would complicate transient response (including RWCU isolation). The use of two Level 2 settings was submitted and approved by the NRC under TS amendment 264 (Reference 3). Allowable Values associated with each Analytical Limit is dependent on instrumentation characteristics and may differ between functions. A normal scram results in RPV level lowering below the 126.5" but would be expected to remain above the proposed setpoint of RWCU. A level below 126.5" was selected to prevent isolation of the RWCU system during a normal scram.

4. Please provide the basis for the Reactor Water Level references (e.g., Top of Active Fuel (TAF)).

   Exelon Response: Reactor Water Level as described in the JAF Technical Specifications in in reference to the top of active fuel (TAF).