

10 CFR 50.90

JAFP-21-0008

February 18, 2021

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: Supplement to Application to Revise Surveillance Requirement (SR) 3.5.1.6

- References:
1. Letter from Dave T. Gudger (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Application to Revise Surveillance Requirement (SR) 3.5.1.6," dated December 11, 2020.
  2. Letter from Justin C. Poole (Nuclear Regulatory Commission Project Manager Plant Licensing Branch I) to David P. Rhoades (Senior Vice President Exelon Generation Company, LLC) titled "James A. FitzPatrick Nuclear Power Plant – Supplemental Information Needed for Acceptance of requested Licensing Acton RE: Revising Surveillance Requirement 3.5.1.6 Involving Recirculation Pump Discharge Valves (EPID L-2020-LLA-0269) ," dated February 10, 2021.

By letter dated December 11, 2020, Exelon Generation Company, LLC (Exelon) submitted a license amendment request to revise the James A. FitzPatrick Nuclear Power Plant (JAF) TS Limiting Condition for Operation (LCO) 3.5.1, "ECCS - Operating," Surveillance Requirement (SR) 3.5.1.6.

By letter dated February 10, 2021, (Reference 2), the NRC identified areas where additional information was necessary to complete its review. This additional information was discussed with the NRC Staff in a clarification call held on January 28, 2021, and it was agreed to a response by February 18, 2021.

Attachment 1 to this letter contains the NRC's request for supplemental information.

Response to Request for Supplemental Information for  
Application to Application to Revise Surveillance Requirement (SR) 3.5.1.6  
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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 Enrique Villar at 610-765-5736.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 18<sup>th</sup> day of February 2021.

Respectfully,

*David T. Gudger*

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David T. Gudger  
Senior Manager, Licensing  
Exelon Generation Company, LLC

Attachment: 1. Request for Additional Information and Exelon Response

cc: Regional Administrator - NRC Region I  
NRC Senior Resident Inspector - JAF  
NRC Project Manager, NRR - JAF  
A. L. Peterson, NYSERDA

**ATTACHMENT 1**

**RESPONSE TO REQUEST FOR SUPPLEMENTAL INFORMATION REGARDING  
APPLICATION TO REVISE THE JAMES A. FITZPATRICK NUCLEAR POWER PLANT  
LIMITING CONDITION FOR OPERATION (LCO) 3.5.1, "ECCS – OPERATING,"  
SURVEILLANCE REQUIREMENT (SR) 3.5.1.6**

**EXELON GENERATION COMPANY, LLC**

**JAMES A. FITZPATRICK NUCLEAR POWER PLANT**

**DOCKET NO. 50- 333**

By letter dated December 11, 2020 (Agencywide Documents Access and Management System Accession No. ML20346A023), Exelon Generation Company, LLC (Exelon) submitted a license amendment request for James A. FitzPatrick Nuclear Power Plant (FitzPatrick). The proposed amendment request would revise Technical Specification (TS) Limiting Condition for Operation (LCO) 3.5.1 "ECCS [Emergency Core Cooling System] – Operating," Surveillance Requirement (SR) 3.5.1.6 from "Once each startup prior to exceeding 25% RTP [rated thermal power]," as modified by a Note stating, "Not required to be performed if performed within the previous 31 days" to 24 months.

The frequency for performing SR 3.5.1.6 in the current FitzPatrick TSs is identical to the frequency in the Standard TS (STS) NUREG-1433, "Standard Technical Specifications – General Electric Plants (BWR/4)." The bases for the frequency in the current FitzPatrick bases are essentially identical to the bases in STS NUREG-1433. Section 2.0 of Attachment 1 of the application states that there is no specific reason to test the valves at a frequency different than that required by the inservice testing (IST). The current FitzPatrick TS bases provide the following reason for the SR frequency:

Verification during reactor startup prior to reaching >25% RTP is an exception to the normal Inservice Testing Program generic valve cycling Frequency of 92 days but is considered acceptable to the demonstrated reliability of these valves.

It appears the current licensing basis provides a specific reason why the valves are tested to a frequency different than that required by the IST and that reason already takes the reliability of the valves into account, though the application doesn't address why this reason is no longer required. While the application points to the historical performance of the valves and the licensee's desire to align with the IST requirements, the application does not provide an analysis or evaluation to show why the change is warranted. The licensee should provide a detailed technical evaluation that justifies changing the frequency from a conditional value (once each startup, including mid-cycle startups) to a set value of 24 months

### **Exelon Response**

By letter dated December 20, 2020, Exelon submitted a License Amendment request to revise Surveillance Requirement (SR) 3.5.1.6. Specifically, Exelon requested to revise the SR frequency from "Once each startup prior to exceeding 25% RTP," to 24 months, and deletes the associated SR Note that states, "Not required to be performed if performed within the previous 31 days."

Although the current James A. FitzPatrick Nuclear Power Plant (JAF) Technical Specification (TS) frequency is consistent with the current requirements contained in NUREG 1433 "Standard Technical Specifications General Electric BWR/4 Plants," revising the frequency to a 24 month frequency will: 1) Eliminate the unnecessary wear and tear associated with cycling the valve as recommended by Section 3.1.1.4 of NUREG 1482 Revision 3, and 2) bring the testing of these cold shutdown valves into alignment with the Inservice Testing Program (IST) and the ASME OM Code test of similar cold shutdown valves.

Specifically, the current JAF IST Program designates the recirculation pump discharge valves as active, Category B valves. In accordance with the IST program requirements for Category B valves seat leakage in the closed position is inconsequential for fulfillment of the required function(s), as specified in ISTC-1300 of ASME OM Code-2004 edition.

Furthermore, ISTC-3521 "Category A and Category B Valves" Subsection (f) partially states that *"valves full-stroke exercised at cold shutdowns shall be exercised during each cold shutdown, except as specified in ISTC-3521(g). Such exercise is not required if the time period since the previous full-stroke exercise is less than 3 months. During extended shutdowns, valves that are required to perform their intended function (see ISTA-1100 shall be exercised every 3 months, if practicable."*

ISTC-3521(g) states: *"valve exercising during cold shutdowns shall commence within 48 hours of achieving cold shutdown and continue until all testing is complete or the plant is ready to return to operation at power. For extended outages, testing need not to commence in 48 hours, provided all valves required to be tested before or as part of plant startup. However, it is not the intent of this Subsection to keep the plant in cold shutdown to complete cold shutdown testing."*

Additionally, Section 3.1.1.4 of NUREG 1482 Revision 3 states in part: *"The NRC staff believe that licensees need not schedule valve testing that requires stopping and restarting reactor coolant pumps during each cold shutdown solely to allow for the testing of such valves. This repetitive cycling would increase pump wear and stress as well as the number of cycles of related plate equipment and could extend the length of cold shutdown outage."* And continues- *"However, valves are to be tested at least during each RFO, as required by Subsection ISTC."*

Exelon recognizes that while the paragraph above explicitly refers to stopping and restarting reactor coolant pumps, normally considered large motors and subject to starting and stopping criteria; the same criterion would apply to the reactor recirculation pumps.

An example of how the recirculation valve will be treated and tested under the current IST program and the ASME OM Code is as follows:

For cold shutdown outage of short duration valve exercising will commence within 48 hours of achieving cold shutdown and continue until all testing is complete or the plant is ready to return to power operation. As stated in ISTC-3521(g), it is not the intent of this Subsection to keep the plan in cold shutdown to complete cold shutdown testing. Valves not tested will be moved in priority such that they will be the first valves to be tested in the event of another cold shutdown forced outage, and no valve will exceed a 24-month frequency.

For cold shutdown outages that are expected to be of longer time duration, it is not expected or required that testing will begin within 48 hours of achieving cold shutdown; however, all valves required to be tested in cold shutdown will be tested prior to plant restart.

Based on the above information, it is Exelon's position that the benefits realized by testing in accordance with the IST program and the ASME OM Code, in conjunction with the reliability data provided in the original submittal sufficiently justifies revising the frequency to 24 months and deviating from the current requirements of NUREG 1433.

Additionally, this position that all valves (Mode 4 valves) do not have to be tested following a short duration shutdown during the cycle was previously accepted and document by the NRC on its Safety Evaluation Report (SER) for Fermi 2, dated May 25, 1999. Specifically, the SER states: "Testing under the IST program is accomplished during cold shutdown if not performed within the previous 92 days. There are numerous other valves for which IST testing is performed in this mode. In short outages, cold shutdown testing is expected to commence within 48 hours after cold shutdown is reached and continue until all valves are tested or the unit is ready to start up. Completion of all testing is not a prerequisite for plant start-up. It is possible, if the plant operates the entire cycle with no extended outages, that valves in this category would not be tested between refueling outages."