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New York Power Authority

Michael J. Colomb
Site Executive Officer

January 13, 2000
JAFP-00-0009

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

Subject: James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333

Additional Information Regarding Proposed Change to the Technical Specifications to Eliminate Main Steam Isolation Valve Twice Per Week Exercise Surveillance Testing Requirement (JPTS-99-007)

Reference: JPN-99-040, Letter from Harry P. Salmon Jr. (NYPA) to U. S. Nuclear Regulatory Commission (USNRC), dated November 24, 1999

Dear Sir:

In the referenced letter, NYPA submitted for your review and approval an application for an amendment to James A. FitzPatrick Technical Specifications (TS) to eliminate the twice per week exercise surveillance requirement for the Main Steam Isolation Valves (MSIV). The attached additional information supplements the referenced submittal.

If you have any questions, please contact Mr. Bob Steigerwald at (315) 349-6209.

Very truly yours,

MICHAEL J. COLOMB

MJC:RS:las
cc: next page

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cc: Regional Administrator
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Attachment to JAFP-00-0009

Response to Request for Additional Information Regarding Proposed Change to Tech. Specs. To Eliminate Main Steam Isolation Valve Twice Per Week Exercise Surveillance Testing Requirement (JPTS-99-007)

NYPA submitted for your review and approval an application for an amendment to the James A. FitzPatrick Technical Specifications (TS) to eliminate the twice per week exercise surveillance requirement for the Main Steam Isolation Valves (MSIV). In the original submittal (Reference 1) it was stated that the exercising of the MSIVs was originally specified in order to detect binding of the pilot valve. The submittal also stated that the type of pilot valve that was susceptible to binding was replaced and there is no longer need for frequent exercising of the MSIVs and their pilot valve. The following additional information clarifies the binding issue of the original MSIV pilot valve and how it was resolved by the new pilot valve assembly.

Discussions with the OEM vendor, General Electric (GE) determined that the twice per week exercise TS surveillance requirement was initially intended to detect and prevent binding of the MSIV pilot and main valve. There was an industry concern with binding of pilot valves during the later part of the 1980's as documented in GE SIL 481 (Reference 2) and NRC Information Notice 88-43. The binding issue was related to Automatic Switch Company (ASCO) dual solenoid valve model number NP8323A20E. GE SIL 481 described the factors that contributed to the malfunctioning of the solenoid valves. In the GE SIL it is stated that "GE has reviewed the ASCO dual solenoid valve failures that have been reported to GE and has determined that they occurred because some of the plunger's elastomer seal, which was forced against the metal seat, extruded into a small diameter vent hole at the center of the metal seat of the solenoid valve. As the elastomer was heated by the energized coils, the seal material expanded and plugged the hole. Friction force between the extruded seal material and the metal wall of the hole was greater then the force of the return spring. Therefore, the internal components could not shift position and the solenoid valve malfunctioned." The type of model previously installed at FitzPatrick was ASCO model number NP8323A35E. Although not the exact same model number, the valves had a similar construction and contained a similar elastomer seal. However, FitzPatrick did not experience a similar failure as that reported in the GE SIL. FitzPatrick replaced the ASCO model pilot valves with valves manufactured by Automatic Valve Company (AVC) in February 1995. One key difference in the new solenoid valve design is that the AVC valve does not have a valve seat on the outside of the core and is less susceptible to thermally induced anomalies.

As stated in the original submittal, the MSIVs will still be required to be full stroke tested in accordance with the IST Program. This requirement is consistent with NUREG-1433, Rev. 1, "Standard Technical Specifications - General Electric Plants, BWR/4," dated April 1995. The purpose of the IST program is to demonstrate operability of pumps and valves. If degradation of valve performance is detected, testing frequency will be increased in accordance with the IST program to ensure reliability.

Attachment to JAFP-00-0009

Response to Request for Additional Information Regarding Proposed Change to Tech. Specs. To Eliminate Main Steam Isolation Valve Twice Per Week Exercise Surveillance Testing Requirement (JPTS-99-007)

References:

1. JPN-99-040, Letter from Harry P. Salmon Jr. (NYPA) to U. S. Nuclear Regulatory Commission (USNRC), dated November 24, 1999.

2. General Electric Nuclear Service Information Letter Number 481, "Malfunction of ASCO Solenoid Valves for MSIVs" dated February 14, 1989.