From:	Audrey Klett
To:	Smith, Derek
Subject:	NRC Request for Additional Information re. Susquehanna Relief Request RR-02 (EPID L-2023-LLR-0044)
Date:	Thursday, November 30, 2023 11:47:00 AM
Attachments:	RAI for Susquehanna RR-02 (L-2023-LLR-0044).docx

Hi Derek,

Attached is a request for additional information (RAI) for the subject proposed alternative. As discussed earlier today, the NRC staff is requesting Susquehanna to respond to the RAI on or by January 5, 2024.

Thanks,

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U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Operating Reactor Licensing
Plant Licensing Branch 1
301-415-0489

Request for Additional Information
Relief [Alternative] Request RR-02
Pressure Isolation Valve Leak Test Frequency
Fifth 10-year Interval Inservice Testing Program
Susquehanna Steam Electric Station, Units 1 and 2
Docket Nos. 50-387 and 50-388
EPID L-2023-LLR-0044

Background

By a letter dated August 3, 2023 (Agencywide Documents Access and Management System Accession No. ML23215A173), Susquehanna Nuclear, LLC (the licensee) submitted Relief Request RR-02 (a proposed alternative) regarding certain inservice testing (IST) requirements of the 2020 Edition of the American Society of Mechanical Engineers (ASME) *Operation and Maintenance of Nuclear Power Plants,* Division 1, OM Code: Section IST (OM Code) for the Fifth 10-Year Interval IST Program at Susquehanna Steam Electric Station (Susquehanna), Units 1 and 2. Although the licensee titled this request as a relief request, the request is a proposed alternative under 10 CFR 50.55a(z).

The licensee proposed an alternative to the testing requirements of ASME OM Code, Subsection ISTC, paragraph ISTC-3630(a), for affected components on the basis that the alternative testing would provide an acceptable level of quality and safety under 10 CFR 50.55a(z)(1). The affected components are specific pressure isolation valves (PIVs) in the residual heat removal (RHR) and core spray (CS) systems. The licensee proposes to perform leak rate testing for these PIVs at intervals ranging from every refueling outage to every third refueling outage instead of once every 2 years per ISTC-3630(a).

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the information provided by the licensee in its submittal and has determined that the staff needs the following additional information to complete its review of the proposed alternative. As discussed with licensee staff on November 30, 2023, NRC is requesting the licensee to respond to the request for additional information (RAI) on or by January 5, 2024.

Regulatory Requirements

The regulations in Title 10 of the *Code of Federal Regulations*, Section 55a, "Codes and standards," paragraph (z), "Alternatives to codes and standards requirements," state the following:

> Alternatives to the requirements of paragraphs (b) through (h) of this section or portions thereof may be used when authorized by the Director, Office of Nuclear Reactor Regulation. A proposed alternative must be submitted and authorized prior to implementation. The applicant or licensee must demonstrate that:
>
> (1) *Acceptable level of quality and safety.* The proposed alternative would provide an acceptable level of quality and safety; or
>
> (2) *Hardship without a compensating increase in quality and safety.* Compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Request for Additional Information

EMIB-RAI-1

By letter dated September 19, 2023 (ML23257A122), the NRC staff authorized an alternative to postpone the leakage test of check valve 251130 at Susquehanna, Unit 2 until the spring 2025 refueling outage. The NRC staff requests the licensee to confirm whether check valve 251130 at Susquehanna, Unit 2 will be leakage tested during the spring 2025 refueling outage.

EMIB-RAI-2

The NRC staff requests the licensee to describe the basis for including containment isolation valves (CIVs) that are within the scope of 10 CFR Part 50, Appendix J, “Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors,” as part of Relief Request RR-02.

EMIB-RAI-3

The NRC staff requests the licensee to describe the representative sampling of PIVs (e.g., how the licensee plans to obtain test data during outages to support an extended test interval program) within the scope of the request during each refueling outage for leakage testing when implementing Relief Request RR-02.

EMIB-RAI-4

The table in RR-02 refers to a PIV as a pressure injection valve, which differs from other parts of the of the alternative request, which refer to pressure isolation valves. The NRC staff requests the licensee to clarify the apparent discrepancy within Relief Request RR-02.