

From: [Audrey Klett](#)
To: [Smith, Derek](#)
Subject: NRC Request for Additional Information re. Susquehanna Relief Request 5RR-02 (EPID L-2023-LLR-0027)
Date: Monday, October 30, 2023 1:59:00 PM
Attachments: [RAIs for SSES 5RR-02 L-2023-LLR-0027.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 November 14, 2023.

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
SUSQUEHANNA NUCLEAR, LLC
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
PROPOSED ALTERNATIVE REQUEST 5RR-02
FOR FIFTH 10-YEAR INSERVICE INSPECTION INTERVAL
DOCKET NOS. 50-387 AND 50-388
EPID: L-2023-LLR-0027**

By letter dated June 1, 2023 (Reference 1), Susquehanna Nuclear, LLC (the licensee) submitted a proposed alternative (Relief Request 5RR-02) for the Susquehanna Steam Electric Station, Units 1 and 2. During the week of October 23, 2023, the U.S. Nuclear Regulatory Commission (NRC) staff audited information related to the request (Reference 2). The NRC staff has reviewed the information provided by the licensee in its submittal and during the audit 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 October 30, 2023, NRC is requesting the licensee to respond to the request for additional information (RAI) on or by November 14, 2023.

References

1. Casulli, E., Susquehanna Nuclear, LLC, letter to U.S. Nuclear Regulatory Commission, "Susquehanna Steam Electric Station Proposed Relief Request for the Fifth 10-Year Inservice Inspection Interval PLA-8073," June 1, 2023 (Agencywide Documents Access and Management System Accession No. ML23152A244).
2. Klett, A., U.S. Nuclear Regulatory Commission, letter to Casulli, E., Susquehanna Nuclear, LLC, "Susquehanna Steam Electric Station, Units 1 and 2 – Regulatory Audit Plan in Support of Relief Request 5RR-02 (EPID L-2023-LLR-0027)," October 19, 2023 (ML23290A262).
3. Title 10 of the *Code of Federal Regulations*, Section 50.55a, "Codes and standards" (10 CFR 50.55a).
4. *American Society of Mechanical Engineer (ASME), Operation and Maintenance of Nuclear Power Plants (OM Code)*, Edition 2020.
5. *ASME Boiler and Pressure Vessel Code (BPV Code)*, Section XI, "Rules for Inspection of Nuclear Power Plant Components," Edition 2019.
6. ASME OM Code Case OMN-13, "Performance-Based Requirements for Extending Snubber Inservice Visual Examination Interval at LWR Power Plants," Revision 3.

Regulatory Basis

The NRC regulations in 10 CFR 50.55a(f)(4), "Inservice testing standards requirement for operating plants" (Reference 3), state, in part, that throughout the service life of a boiling or pressurized water-cooled nuclear power facility, pumps and valves that are within the scope of the ASME OM Code (Reference 4) must meet the inservice test requirements (except design and access provisions) set forth in the ASME OM Code and addenda that become effective subsequent to editions and addenda specified in paragraphs 10 CFR 50.55a(f)(2) and (3) and

that are incorporated by reference in paragraph 10 CFR 50.55a(a)(1)(iv), to the extent practical within the limitations of design, geometry, and materials of construction of the components. When using the 2006 Addenda or later of the ASME BPV Code, Section XI (Reference 5), the inservice examination, testing, and service life monitoring requirements for dynamic restraints (snubbers) must meet the requirements set forth in the applicable ASME OM Code as specified in paragraph 10 CFR 50.55a(b)(3)(v)(B). When using the 2005 Addenda or earlier edition or addenda of the ASME BPV Code, Section XI, the inservice examination, testing, and service life monitoring requirements for dynamic restraints (snubbers) must meet the requirements set forth in either the applicable ASME OM Code or ASME BPV Code, Section XI as specified in paragraph 10 CFR 50.55a(b)(3)(v).

The NRC regulations in 10 CFR 50.55a(g)(4), *Inservice inspection standards requirement for operating plants*, state, in part, that throughout the service life of a boiling or pressurized water-cooled nuclear power facility, components (including supports) that are classified as ASME Code Class 1, Class 2, and Class 3 must meet the requirements, except design and access provisions and preservice examination requirements, set forth in Section XI of editions and addenda of the ASME BPV Code that become effective subsequent to editions specified in 10 CFR 50.55a(a)(g)(2) and (3) and that are incorporated by reference in 10 CFR 50.55a(1)(ii) or (iv).

RAI-5RR-02-1 (Audit Item 001)

ASME BPV Code, Section XI, IWF-2410, Inspection Program, paragraph (b) requires that “The required examination [of supports and attachments] shall be completed in accordance with the inspection schedule provided in Table IWF-2410-1, Inspection Program;” specifically, inspection period, calendar years of plant service, within the interval (3, 7, and 10 years). Please explain how these supports’ inspection schedule interval (3, 7, and 10 years) and inspection schedule interval of snubbers by use of OMN-13 (Reference 6) (up to 10 years) and supports containing snubbers will be examined and maintained. Please clarify how the licensee plans to align the different inspection intervals under the two different requirements of the ASME OM Code with Code Case OMN-13 and ASME BPV Code, Section XI.

RAI-5RR-02-2 (Audit Item 002)

ASME BPV Code, Section XI, IWF-2430(a) states, in part, that component supports examination performed in accordance with Table IWF-2500-1 (F-A) that reveal flaws or relevant conditions exceeding the acceptance standards of IWF-3400, and that requires corrective measures or repair/replacement activities in accordance with IWF-3122.2, shall be extended, during the current outage, to include the component supports immediately adjacent to flawed supports. Please explain how this situation (to include supports adjacent to flawed supports) will be considered, given that the proposed alternative only considers supports with snubbers. (Note: the adjacent supports could be affected with the snubber.)

RAI-5RR-02-3 (Audit Item 003)

In the “Proposed Alternative and Basis for Use” section of Request 5RR-02, it is noted that ASME OM Code Case OMN-13 requires 100 % of safety-related snubbers to be examined and evaluated at least once every 10 years. This exceeds the requirements of the 2019 Edition of the ASME BPV Code, Section XI, Table IWF-2500-1 (F-A), which only requires 25 % of Class 1,

15 % of Class 2, and 10 % of Class 3 supports/attachment over a 10-year interval. Please respond to the following:

- A. ASME OM Code Case OMN-13 allows extension of the snubber visual examination once every 10 years and can be implemented after the requirements of ISTD-4251, "Initial Examination Interval," and ISTD-4252, "Subsequent Examination Interval," have been satisfied and the previous examination per Table ISTD-4252-1, "Visual Examination Table," was performed satisfactorily at a maximum interval of two fuel cycles. Describe how the proposed snubber examination extended up to 10 years can be aligned with the 10-year inservice inspection interval of the support and attachments (containing the snubber) for inspection.
- B. While using OMN-13 for snubbers during the extended interval of 10-years, if the number of unacceptable snubbers (pin-to-pin) exceeds Table ISTD-4252-1 limits (these unacceptable snubbers can be found during non-inspection activities, such as walkdowns, or any other events, such as water hammer), describe the action that will be taken and how these findings would align with the supports and attachments inspection (section 3.7(b) of OMN-13 requires that if, any time during an examination interval, the cumulative number of unacceptable snubbers exceeds the applicable values from the column in Table ISTD-4252-1, then the current examination interval shall end, and all remaining examinations must be completed within the current cycle).
- C. If the number of supports with snubbers exceeds the requirements of ASME BPV Code, Section XI, Table IWF-2500-1 (F-A), will any piping support without snubbers be examined?

RAI-5RR-02-4 (Audit Item 004)

Describe the method of inspection of newly added supports with snubbers, and supports without snubbers, during the 10-year interval, as per Request 5RR-02 (e.g., if the licensee replaces a support or snubber that failed an inspection during the current interval, how would the inspection process be applied to that new support or snubber?). Please describe how the inspection process would apply the alternative proposed in Request 5RR-02 and meet IWF-2410(c).

RAI-5RR-02-5 (Audit Item 000)

The NRC staff requests the licensee to provide the information in "ID No. 000" from the audit portal regarding the clarification of the scope of the proposed alternative.