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June 01, 2023

Attn: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

10 CFR 50.55a

**SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED RELIEF REQUEST FOR THE FIFTH
10-YEAR INSERVICE INSPECTION INTERVAL
PLA-8073**

**Docket No. 50-387
and 50-388**

In accordance with 10 CFR 50.55a, "Codes and standards," paragraph (z)(1), Susquehanna Nuclear, LLC (Susquehanna), requests NRC approval of enclosed Relief Request 5RR-02, which proposes an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code for inspection of snubber attachments, associated with the Fifth 10-Year Inservice Inspection (ISI) Interval for Susquehanna Steam Electric Station (SSES), Units 1 and 2.

The Fifth 10-Year ISI Interval and Fifth 10-Year Snubber Program Interval at SSES will begin on June 1, 2024, and are currently scheduled to end May 31, 2034. Accordingly, Susquehanna requests authorization of this request by March 31, 2024, to support the Fifth 10-Year ISI Interval. The Fifth 10-Year ISI Interval of the ISI Program at SSES will comply with the 2019 Edition of the ASME BPV Code. The relief request is for relief of the ISI requirements of 2019 Edition of ASME Section XI on examination boundaries and sample size of snubbers.

There are no new or revised commitments contained in this submittal.

Should you have any questions regarding this submittal, please contact Ms. Melisa Krick, Manager – Nuclear Regulatory Affairs, at (570) 542-1818.

A handwritten signature in black ink, appearing to read "E. Casulli".

E. Casulli

Enclosure: Relief Request 5RR-02

Copy: NRC Region I
Mr. C. Highley, NRC Senior Resident Inspector
Ms. A. Klett, NRC Project Manager
Mr. M. Shields, PA DEP/BRP

Enclosure to PLA-8073

Relief Request 5RR-02

**10 CFR 50.55a Proposed Alternative 5RR-02, Revision 0
Proposed Alternative for Examination of Snubber Attachments
in Accordance with 10 CFR 50.55a(z)(1)**

1. ASME Code Component(s) Affected

Code Class: 1, 2, and 3
Reference: IWF-2500-1 Table
Examination Category: F-A
Item Number: F1.10, F1.20, F1.30, and F1.40
Description: Alternative Examination of Snubber Attachments
Component Number: All Class 1, 2, and 3 Snubber Attachments

2. Applicable Code Edition

The Susquehanna Steam Electric Station, Units 1 and 2, (SSES) will start the Fifth 10-Year Inservice Inspection (ISI) Interval on June 1, 2024, and is required to follow the 2019 Edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components" (ASME Section XI).

SSES will start the Fifth 10-Year Snubber Program Interval on June 1, 2024, and is required to follow the 2020 Edition of the American Society of Mechanical Engineers Operation and Maintenance Code, "Operation and Maintenance of Nuclear Power Plants" (ASME OM Code).

3. Applicable Code Requirement

The 2019 Edition of ASME Section XI contains Figure IWF-1300-1(f) which depicts the examination boundaries for snubbers. The boundaries indicate that the attachments of the snubber to the pressure boundary and building structure are required to be examined in accordance with IWF-2000.

Table IWF-2500-1 requires a VT-3 Visual Examination of Class 1 (F1.10), Class 2 (F1.20), Class 3 (F1.30) piping supports, and Class 1, 2, and 3 (F1.40) component supports. The required percentages to examine for each class are also identified: Class 1 (25%), Class 2 (15%), and Class 3 (10%). The total percentage sample shall be comprised of supports from each system (such as Main Steam, Feedwater, or Residual Heat Removal), where the individual sample sizes are proportional to the total number of non-exempt supports of each type and function within each system. For F1.40 components, 100% of the supports require examination, unless there are multiple components other than piping within a system of similar design, function, and service, then the supports of only one of the multiple components are required to be examined.

4. Reason for Request

Snubbers were removed from the jurisdiction of ASME Section XI in the 2004 Edition with the 2006 Addenda. Figure IWF-1300-1(f) was added to show the examination boundaries for snubbers, which excluded the body of the snubber including the pivot and clevis pin (see Figure 1 below).

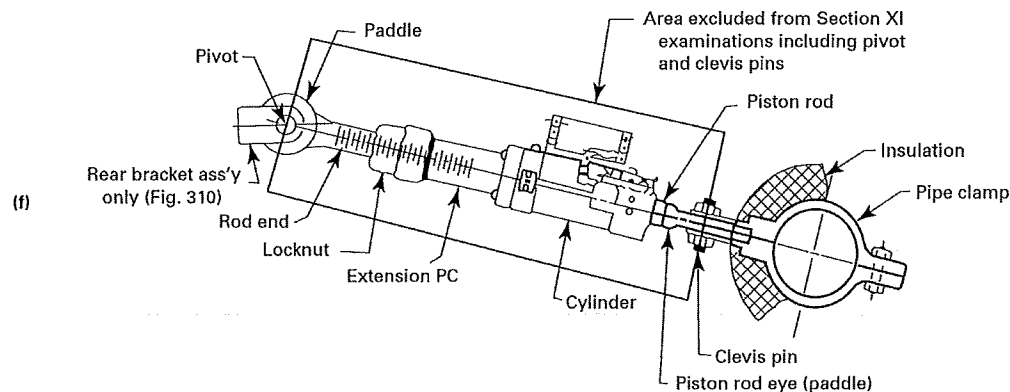


Figure 1

The attachments for the snubber to the pressure boundary (via pipe clamps, etc.) and to the building structure are still included as part of the 2019 Edition of ASME Section XI examination boundary. This means that both the Snubber Program and the ISI Program require tracking and scheduling two different examination boundaries for snubber components.

In order to eliminate the duplication of effort by tracking two different examination boundaries for snubbers, SSES requests incorporating both examination boundaries as shown in Figure 2 below into the Snubber Program. This combined boundary will include all items listed in Paragraph IWF-2500 of the 2019 Edition of ASME Section XI. In addition, incorporating both examination boundaries into one program provides a better understanding of the condition of the snubber and its associated attachment to the pressure boundary or building structure. A 100% visual examination of all safety related snubbers will be performed on an examination frequency determined by the 2020 Edition of the ASME OM Code and Code Case OMN-13. (Note that ASME Code Case OMN-13, Revision 3, has been found acceptable in Regulatory Guide 1.192, Revision 4). The examination method used for the snubber and their attachments will be a VT-3 Visual Examination in accordance with the 2019 Edition of ASME Section XI, IWA-2213.

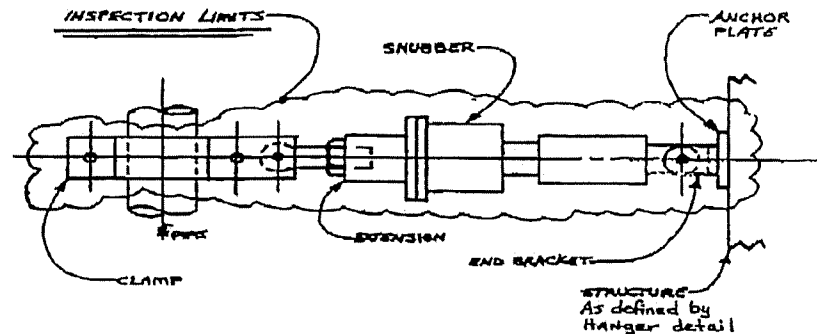


Figure 2

5. Proposed Alternative and Basis for Use

Pursuant to 10 CFR 50.55a(z)(1), relief is requested on the basis that the proposed alternatives provide an acceptable level of quality and safety.

Examinations of snubbers and their associated attachments will be administered and scheduled per the SSES Snubber Program under the requirements of the ASME OM Code 2020 Edition. VT-3 Visual Examinations of the associated attachments will be performed at the same time as the required visual examination of the snubber. For those snubber attachments that are covered by insulation, the insulation will be removed prior to the VT-3 Visual Examination. Examinations of non-snubber supports and their associated attachments will continue to be administered and scheduled per the SSES ISI Program under the requirements of the 2019 Edition of the ASME Section XI Code.

The ASME OM Code Case OMN-13 requires 100% safety related snubbers to be examined and evaluated at least once every 10 years. This exceeds the requirements of the 2019 Edition of ASME Section XI, Table IWF-2500-1 which only requires 25% of F1.10, 15% of F1.20, and 10% of F1.30 supports required over a 10-year interval. SSES has met the general requirements stated in Section 2 of OMN-13; therefore, use of this code case is acceptable. (Note: If the number of unacceptable snubbers exceed the limits as prescribed in ISTD-4252-1, a reduction in the frequency of visual examinations will occur. Only snubbers and their associated attachments will be under the requirements of this reduced visual inspection frequency.)

Under the SSES ISI Program, the requirements of IWF-2430 will continue to be followed for supports. Specifically, if examination of a support reveals a flaw or relevant condition exceeding the acceptance standards of IWF-3400, and then requires corrective measures or repair/replacement activities in accordance with IWF-3122.2, examination will extend (including snubbers), during the current outage, in accordance with IWF-2430(a)(1) and (2). The requirement found in IWF-2430 to examine the supports immediately adjacent to a

snubber that is found exceeding the acceptance standards, and that requires corrective measures or repair/replacement activities, will be examined regardless of whether the adjacent support includes a snubber. New supports (without snubbers) will be examined in accordance with the 2019 Edition of ASME Section XI, IWF-2410(c).

Under the SSES Snubber Program, should a snubber or its associated attachment fail its visual examination, then the snubber will be removed for functional testing. The visual failure and the reason for the failure will also be entered into the SSES Corrective Action Program (CAP) system. Should the snubber fail its functional test, it is then considered a visual failure and the requirements of ASME OM Code ISTD-4240 then apply. New snubbers added will be examined in accordance with the ASME OM Code.

Examining both boundaries in the SSES Snubber Program by using VT-3 Visual Examination qualified personnel provides a better understanding of the snubber and attachments. This will meet both the ASME OM Code and Section XI Code visual examination requirements. This is being done as a dose and time saving effort as this reduces the number of required examinations and personnel required to accomplish both requirements with one examination. Performing the examination of 100% of the snubber attachments in accordance with the ASME OM Code frequency exceeds the examination percentage requirements as defined in the 2019 Edition of ASME Section XI Code.

6. Duration of Proposed Alternative

This relief will remain in effect for the duration of the Fifth 10-Year ISI Interval and Fifth 10-Year Snubber Program Interval for SSES, Units 1 and 2.

7. Precedent

Letter from M. K. Khanna (NRC) to T. S. Rausch (PPL Susquehanna, LLC), "Susquehanna Steam Electric Station, Units 1 and 2 – Relief Requests for the Fourth 10-Year Inservice Inspection Interval (TAC Nos. MF2705 through MF2714)," dated June 9, 2014 (ADAMS Accession No. ML14141A073).

8. References

1. American Society of Mechanical Engineers, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," 2019 Edition.
2. American Society of Mechanical Engineers, "Operation and Maintenance of Nuclear Power Plants," 2020 Edition.
3. Regulatory Guide 1.192, Revision 4, Operation and Maintenance Code Case Acceptability, ASME OM Code, December 2021.
4. Letter from J. A. Franke (PPL Susquehanna, LLC) to NRC, "Susquehanna Steam Electric Station Proposed Relief Requests for the Fourth Ten-Year Inservice

- Inspection Interval for Susquehanna Units 1 and 2,” dated August 30, 2013 (ADAMS Accession No. ML13247A167).
5. Letter from J. A. Whited (NRC) to T. S. Rausch (PPL Susquehanna, LLC), “Susquehanna Steam Electric Station, Units 1 and 2 – Request for Additional Information Regarding Relief Requests for the Fourth 10-Year Inservice Inspection Interval (TAC Nos. MF2705, MF2706, MF2709, and MF2710),” dated December 19, 2013 (ADAMS Accession No. ML13338A442).
 6. Letter from J. A. Franke (PPL Susquehanna, LLC) to NRC, “Susquehanna Steam Electric Station Response to Request for Additional Information on Fourth Ten-Year Inservice Inspection Interval Proposed Relief Requests,” dated January 31, 2014 (ADAMS Accession No. ML14031A081).
 7. Letter from J. A. Franke (PPL Susquehanna, LLC) to NRC, “Susquehanna Steam Electric Station Response to Request for Additional Information on Fourth Ten-Year Inservice Inspection Interval Proposed Relief Requests,” dated April 28, 2014 (ADAMS Accession No. ML14118A443).
 8. Letter from M. K. Khanna (NRC) to T. S. Rausch (PPL Susquehanna, LLC), “Susquehanna Steam Electric Station, Units 1 and 2 – Relief Requests for the Fourth 10-Year Inservice Inspection Interval (TAC Nos. MF2705 through MF2714),” dated June 9, 2014 (ADAMS Accession No. ML14141A073).