

From: [Guzman, Richard](#)
To: Shayan.Sinha@dominionenergy.com
Bcc: [Guzman, Richard](#)
Subject: Millstone Power Station, Unit 2 - DRAFT Request for Additional Information - Proposed LAR to Revise TSs for Steam Generator Inspection Frequency (EPID: L-2020-LLA-0027)
Date: Friday, February 26, 2021 1:28:00 PM

Shayan,

By letter dated October 8, 2020, as supplemented by letter dated December 8, 2020 (ADAMS Accession No. ML20282A594 and ML20343A259, respectively), Dominion Energy Nuclear Connecticut, Inc., submitted a license amendment request for Millstone Power Station, Unit No. 2 (MPS2). The proposed amendment would revise MPS2 TS 6.26, "Steam Generator (SG) Program," Item d.2, to reflect a proposed change to the required SG tube inspection frequency from every 72 effective full power months (EFPM), or at least every third refueling outage, to every 96 EFPM.

The NRC staff has determined that additional information is needed to complete its review, as described in the request for additional information (RAI) shown below. This RAI is identified as DRAFT at this time to confirm your understanding of the information needed by the NRC staff to complete its evaluation. If you'd like to have a clarification call, please let me know and I will coordinate availabilities w/the NRC technical staff. I intend to send out the questions below as official no later than March 12th, if possible.

Thanks,

Richard Guzman

Sr. PM, Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Office: 0-9C7 | Phone: (301) 415-1030
Richard.Guzman@nrc.gov

===== **DRAFT** =====

REQUEST FOR ADDITIONAL INFORMATION (RAI) REGARDING
-
PROPOSED LICENSE AMENDMENT REQUEST TO REVISE THE
-
MPS2 TECHNICAL SPECIFICATIONS FOR STEAM GENERATOR
INSPECTION FREQUENCY
-
DOMINION ENERGY NUCLEAR CONNECTICUT, INC.
-
MILLSTONE POWER STATION, UNIT NO. 2
-
DOCKET NO. 50-336
-
EPID: L-2020-LLA-0027

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By letter dated October 8, 2020 (Reference 1), and as supplemented by letter dated December 8, 2020 (Reference 2), Dominion Energy Nuclear Connecticut, Inc. (the licensee), submitted a license amendment request (LAR) proposing changes to the Technical Specifications (TS) for Millstone Power Station, Unit 2 (Millstone Unit 2). The proposed changes would alter the steam generator (SG) tube inspection requirements in TS Section 6.26, "Steam Generator (SG) Program," and the SG tube inspection reporting requirements in TS Section 6.9.1.9, "Steam Generator Tube Inspection Report," for Millstone Unit 2. The licensee requested that the changes be approved as a license amendment in accordance with Section 50.90, "Application for amendment of license, construction permit, or early site permit," of Title 10 of the *Code of Federal Regulations* (10 CFR), "Energy."

In Appendix A of 10 CFR Part 50, General Design Criteria 14, 15, 30, 31, and 32 define requirements for the structural and leakage integrity of the reactor coolant pressure boundary (RCPB). As part of the RCPB, the SG tubes must also meet the requirements of 10 CFR 50.55a with respect to inspection and repair requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code. All pressurized water reactors have TS according to 10 CFR 50.36 that include a SG Program with specific criteria for the structural and leakage integrity, repair, and inspection of SG tubes. For Millstone Unit 2, the requirements for performing SG tube inspections and repair are in TS Section 6.26, while the requirements for reporting the SG tube inspections and repair are in TS Section 6.9.1.9.

The NRC staff has determined that additional information as requested below is needed to complete its review of the licensee's LAR.

RAI-1

There appears to be the following punctuation errors in Insert A to TS Section 6.9.1.9 in Attachment 2, "Marked-up Technical Specification Pages," of Reference 1;

- a. The word "and" is missing after the semicolon at the end of c.3.
- b. The semicolon at the end of c.4 should be a period.
- c. The word "and" is missing after the semicolon at the end of e.
- d. The semicolon at the end of f should be a period.

The staff also noted that the editorial changes from Section 2.4.4, "Editorial Improvements," of Technical Specification Task Force (TSTF)-577, Revision 0, "Revised Frequencies for Steam Generator Tube Inspections" (Reference 3), which is currently under review, were not incorporated in the proposed mark-up TS pages. For example, changing "Steam Generator" to "SG".

When the appropriate changes have been made, please provide new proposed marked-up TS pages; and clean proposed TS pages for the staff to review implementation of the proposed TS changes.

RAI-2

The Millstone Unit 2 spring 2017 SG tube inspection report (Reference 4) states, "Steam drum visual inspections to evaluate the material condition and cleanliness of key components such as moisture separators, drain systems, and interior surfaces," were

performed in both SGs during refueling outage 24 (2R24). Reference 4 goes on to state, "The results of all secondary-side visual examinations performed were satisfactory, with no degradation detected." However, Section 4.3.1, "Steam Drum," of the Attachment to Reference 2 states, "Evidence of early stage flow assisted corrosion of the secondary moisture separators was noted." Figure 4-3, "Steam Drum Components," in the Attachment to Reference 2 includes a picture of early stage flow assisted corrosion in a separator baseplate. Section 4.3.1 goes on to state, in part, "...based on limited operational wear observed through 2R24, significant structural degradation is not expected to occur over the next five cycles of operation." The staff has the following requests regarding the flow assisted corrosion of the secondary moisture separators:

- a. Please discuss the discrepancy between Reference 2 and Reference 3 related to the results of the secondary-side visual examinations.
- b. Please describe each location where flow assisted corrosion was observed in all SGs.
- c. Please discuss how the flow assisted corrosion was evaluated to determine that "significant structural degradation is not expected to occur over the next five cycles of operation." In addition, please discuss how the condition will be monitored during future outages, for example, visual inspections, thickness measurements.

RAI-3

Table 4-2, "DMT Deposit Removal Quantities," of the Attachment to Reference 2 indicates identical amounts of magnetite and copper (e.g., 1,963 lbs. of magnetite and 16.2 lbs. of copper) were removed from both Millstone Unit 2 SGs. Please confirm the values reported in Table 4-2 are correct for both SGs.

RAI-4

Reference Identification 2610 in the table entitled, "SG26 [SG 2] PLP [possible loose parts] / Foreign Objects Detected in 2R24," of the Attachment to Reference 2 states that the historical foreign object (nut) appears to have moved closer to the periphery. The table further states that no wear was identified in the vicinity and that the part was not visually monitored by secondary side inspection. Please discuss the decision not to visually monitor the foreign object and attempt to remove the foreign object during 2R24.

RAI-5

The staff notes that Technical Specification Task Force (TSTF)-577, Revision 0, "Revised Frequencies for Steam Generator Tube Inspections" (Reference 3), is currently under review. While the proposed Millstone Unit 2 TS changes are modeled after TSTF-577, Revision 0, please discuss how the Millstone Unit 2 TS will be updated to reflect any differences between TSTF-577, Revision 0, and, ultimately, any revision of TSTF-577 that may be approved.

RAI-6

The staff identified the following apparent discrepancies. Confirm the correct information.

- a. Table 3-2, "Summary of SG Inspection Sampling Through the 2R24 Outage (TS 6.26)," in the Attachment to Reference 2 refers to fan bar and foreign object wear as potential

degradation mechanisms rather than existing degradation mechanisms.

- b. Section 5, Condition Monitoring Assessment," of the Attachment to Reference 2 states, "Figures 5-1 through 5-4 provide the CM [condition monitoring] limit curves for flaws sized with ETSSs [examination technique specification sheets] 96004.3, 27901.1, 27902.1, and 27903.1[,] respectively." However, Figure 5-1, "Acceptance Limits for Fan Bar Wear," references ETSS 96041.3. The staff also notes that ETSS 96004.3 is not referenced in any other section in Reference 2.

REFERENCES

- 1. Proposed License Amendment Request to Revise the Millstone Unit 2 Technical Specifications for Steam Generator Inspection Frequency, dated October 8, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20282A594).
- 2. Supplement to Proposed License Amendment Request to Revise the Millstone Unit 2 Technical Specifications for Steam Generator Frequency, dated December 8, 2020 (ADAMS Accession No. ML20343A259).
- 3. TSTF-577, "Revised Frequencies for Steam Generator Tube Inspections," Revision 0, dated June 8, 2020 (ADAMS Accession No. ML20160A359).
- 4. Millstone, Unit 2, End of Cycle 24 Steam Generator Tube Inspection Report, dated September 18, 2017 (ADAMS Accession No. ML17269A030).

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