From: Guzman, Richard
Sent: Thursday, March 18, 2021 12:55 PM
To: Shayan.Sinha@dominionenergy.com
Cc: Danna, James
Subject: Millstone Power Station, Unit 2 - Request for Additional Information - Proposed LAR to Revise TSs for Steam Generator Inspection Frequency (EPID: L-2020-LLA-0027)

Mr. Sinha,

On February 26, 2021, the U.S. Nuclear Regulatory Commission (NRC) staff sent Dominion Energy Nuclear Connecticut, Inc. (DENC, the licensee) the subject Request for Additional Information (RAI) as a draft e-mail. The RAI relates to the licensee's license amendment request dated October 8, 2020 (ADAMS Accession No. ML20282A594), as supplemented by letter dated December 8, 2020 (ADAMS Accession No. ML20343A259), proposing changes to the Millstone Power Station, Unit No. 2 Technical Specifications. Specifically, the proposed amendment would revise the steam generator 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."

On March 9, 2021, the NRC staff and DENC held a conference call to discuss clarifications on the draft RAI. Updated below is the official (final) RAI. As we discussed, please respond to this RAI within 30 days of this e-mail communication, or no later than April 19, 2021. A publicly available version of this message will be placed in the NRC's ADAMS system. Please contact me if you have any questions in regard to this request.

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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

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 are several apparent inconsistencies between the proposed Insert A to TS Section 6.9.1.9 in Attachment 2, "Marked-up Technical Specification Pages," of Reference 1 and the proposed changes in TSTF-577 (Reference 3) from which the licensee states it is proposing to model (for example, c.3, c.4. e. and f. of TS 6.9.1.9). The staff also noted that the editorial changes from Section 2.4.4, "Editorial Improvements," of Reference 3, which is currently under review, were not incorporated in the proposed mark-up TS pages. Please provide the correct proposed changes and new proposed mark-up TS pages. If not, provide an explanation for the apparent inconsistencies.

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 4 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 SG 25 (2,608 lbs. of total deposit) and SG 26 (2,584 lbs. of total deposit). This appears to be in error as the staff would not expect the deposit removal quantities to be identical for the two SGs. Please provide the correct values for both SGs in Table 4.2, or provide an explanation for the apparent error.

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 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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From: Guzman, Richard

Created By: Richard.Guzman@nrc.gov

Recipients:
"Danna, James" <James.Danna@nrc.gov>
Tracking Status: None
"Shayan.Sinha@dominionenergy.com" <Shayan.Sinha@dominionenergy.com>
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Post Office: MN2PR09MB5322.namprd09.prod.outlook.com

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