

From: Galvin, Dennis
Sent: Friday, January 29, 2021 1:38 PM
To: Wendy Brost (webrost@stpegs.com)
Subject: South Texas Project –Request for Additional Information - 1RE22 Inspection Summary Report for Steam Generator Tubing (EPID: L 2020-LRO-0062)
Attachments: STP 1RE22 SG Tube Inspection Summary Report Draft RAI 2021-01-29.pdf

Ms. Brost,

By letter dated October 7, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20281A854), STP Nuclear Operating Company submitted information summarizing the results of the spring 2020 steam generator (SG) inspections performed at South Texas Project Electric Generating Station, Unit 1 (South Texas Unit 1). The inspections were performed during refueling outage 22 (1RE22).

To complete its review, the NRC staff has prepared a request for additional information (RAI) in DRAFT form.

To arrange a clarification call for the draft RAIs and to discuss the due date for the RAI response, please contact me at (301) 415-6256.

Respectfully,

Dennis Galvin
Project Manager
U.S Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Operating Reactor Licensing
Licensing Project Branch 4
301-415-6256

Docket No. 50-498

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DRAFT REQUEST FOR ADDITIONAL INFORMATION

1 RE22 INSPECTION SUMMARY REPORT FOR STEAM GENERATOR TUBING

STP NUCLEAR OPERATING COMPANY

SOUTH TEXAS PROJECT UNIT 1

DOCKETS 50-498

By letter dated October 7, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20281A854), STP Nuclear Operating Company submitted information summarizing the results of the spring 2020 steam generator (SG) inspections performed at South Texas Project Electric Generating Station, Unit 1 (South Texas Unit 1). The inspections were performed during refueling outage 22 (1RE22).

In Appendix A of Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR), 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 Technical Specifications (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. South Texas Unit 1 TS Section 6.9.1.7 requires that a report be submitted within 180 days after the initial entry into hot shutdown (MODE 4) following completion of an inspection of the SGs performed in accordance with TS Section 6.8.3.o, which requires that a SG Program be established and implemented to ensure SG tube integrity is maintained.

To complete its review of the inspection report, the U.S. Nuclear Regulatory Commission (NRC) staff requests the following additional information.

1. As required by South Texas Unit 1 TS Sections 6.9.1.7.e and f, provide the following:
 - a. Number of tubes plugged during 1RE22 for each degradation mechanism.
 - b. Number and percentage of tubes plugged to date, and the effective plugging percentage in each SG.
2. The NRC staff have the following questions regarding Table 1 of the spring 2020 SG tube inspection report (SGTIR).
 - a. During 1RE22, 811 (209 in SG-A, 175 in SG-B, 201 in SG-C, and 226 in SG-D) total manufacturing burnish marks (MBMs) were reported. However, a total of 1036 (247 in SG-A, 226 in SG-B, 260 in SG-C, and 303 in SG-D) MBMs were reported in the fall 2015 SGTIR (1RE19) (ADAMS Accession No. ML16125A248). Please discuss the difference in the number of MBMs between the two reports.
 - b. A total of 40 (20 in SG-A, 8 in SG-B, 4 in SG-C, and 8 in SG D) tube-to-tube proximity (PRO) indications were reported during 1RE22. However, a total of 27 (16 in SG-A, 7 in

SG-B, 4 in SG-C, and 0 in SG-D) PRO indications were reported during 1RE19. Please discuss the difference in the number of PRO indications between the two reports. In addition, if new PRO indications were identified during 1RE22, please discuss any insight you may have with regards to the cause of the PRO indications.

- c. During 1RE22, 11 (0 in SG-A, 1 in SG-B, 3 in SG-C, and 7 in SG-D) total volumetric (VOL) indications were reported. However, a total of 13 (1 in SG-A, 1 in SG-B, 3 in SG-C, and 8 in SG-D) VOL indications were reported during 1RE19. The NRC staff understands that tube Row 30, Column 78 in SG-D was plugged during 1RE19. Please discuss why the VOL indication reported in SG-A during 1RE19 was not reported during 1RE22.