



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

April 15, 2021

Mr. G. T. Powell  
President and Chief Executive Officer  
STP Nuclear Operating Company  
P.O. Box 289  
Wadsworth, TX 77483

SUBJECT: SOUTH TEXAS PROJECT, UNIT 1 – REVIEW OF THE SPRING 2020 STEAM GENERATOR TUBE INSPECTION REPORT (EPID L-2020-LRO-0062)

Dear Mr. Powell:

By letter dated October 7, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20281A854), as supplemented by letter dated March 8, 2021 (ADAMS Accession No. ML21067A772), STP Nuclear Operating Company (STPNOC, the licensee), submitted information summarizing the results of the spring 2020 steam generator inspections at South Texas Project, Unit 1. These inspections were performed during the 22<sup>nd</sup> refueling outage.

The U.S. Nuclear Regulatory Commission (NRC) staff has completed its review of the STPNOC submittals and concludes that the licensee provided the information required by the South Texas Project, Unit 1 technical specifications. The NRC staff did not identify additional issues that warrant followup actions. The NRC staff's review summary is enclosed.

If you have any questions, please contact me at 301-415-6256 or [Dennis.Galvin@nrc.gov](mailto:Dennis.Galvin@nrc.gov).

Sincerely,

*/RA/*

Dennis J. Galvin, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-498

Enclosure:  
Review of Steam Generator Tube  
Inspection Report

cc: Listserv

REVIEW OF THE SPRING 2020 STEAM GENERATOR TUBE INSPECTION REPORT

STP NUCLEAR OPERATING COMPANY

SOUTH TEXAS PROJECT, UNIT 1

DOCKET NO. 50-498

By letter dated October 7, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20281A854), as supplemented by letter dated March 8, 2021 (ADAMS Accession No. ML21067A772), STP Nuclear Operating Company (the licensee), submitted information summarizing the results of the spring 2020 steam generator (SG) inspections at South Texas Project, Unit 1. The inspections were performed during refueling outage 22 (1RE22).

South Texas Project, Unit 1 is a four-loop pressurized-water reactor with Westinghouse Model Delta 94 SGs. Each recirculating SG contains 7,585 thermally treated Alloy 690 tubes with a nominal outside diameter of 0.688 inches and a nominal wall thickness of 0.040 inches. The tubes are supported by a number of stainless steel tube support plates and anti-vibration bars. The tubes were hydraulically expanded at both ends for the full depth of the tubesheet. In addition, the U-bend region of the low row tubes was stress relieved prior to operation.

The licensee provided the scope, extent, methods, and results of the SG tube inspections in the letters referenced above. In addition, the licensee described corrective actions (e.g., tube plugging), if any were taken in response to the inspection findings.

Based on the review of the information provided, the U.S. Nuclear Regulatory Commission (NRC) staff has the following observations:

- The licensee clarified that no tubes were plugged during 1RE22.
- No crack like indications, no new volumetric indications under the hard sludge region, no new tube support plate wear indications, and no new foreign object wear indications were identified during 1RE22.
- The licensee discontinued the use of the Dent (DNT) indication code and prior cycle DNT indications are associated with the Ding (DNG) indication code (also referred to in the submittal as a three-letter code).

Based on a review of the information provided, the NRC staff concludes that the licensee provided the information required by its technical specifications. In addition, the NRC staff concludes that there are no technical issues that warrant additional followup action at this time, since the inspections appear to be consistent with the objective of detecting potential tube degradation and the inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

SUBJECT: SOUTH TEXAS PROJECT, UNIT 1 – REVIEW OF THE SPRING 2020 STEAM  
 GENERATOR TUBE INSPECTION REPORT (EPID L-2020-LRO-0062)  
 DATED APRIL 15, 2021

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**ADAMS Accession No.: ML21104A396**

**\*via e-mail**

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