



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

March 27, 2019

Mr. G. T. Powell
President and CEO
STP Nuclear Operating Company
South Texas Project
P.O. Box 289
Wadsworth, TX 77483

SUBJECT: SOUTH TEXAS PROJECT, UNIT 2 – REVIEW OF THE SPRING 2018 STEAM GENERATOR INSPECTIONS (EPID L-2018-LRO-0041)

Dear Mr. Powell:

By letter dated October 18, 2018 (Agencywide Documents Access and Management System Accession No. ML18291B356), STP Nuclear Operating Company (the licensee), submitted information summarizing the results of the spring 2018 steam generator inspections at South Texas Project, Unit 2. These inspections were performed during the 19th refueling outage.

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

If you have any questions, please contact me at 301-415-1906 or at Lisa.Regner@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Regner", written over a white background.

Lisa M. Regner, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-499

Enclosure:
Review of Steam Generator
Inspection Report

cc: Listserv

REVIEW OF THE 2018 STEAM GENERATOR INSPECTION REPORT

STP NUCLEAR OPERATING COMPANY

SOUTH TEXAS PROJECT, UNIT 2

DOCKET NO. 50-499

By letter dated October 18, 2018 (Agencywide Documents Access and Management System Accession No. ML18291B356), STP Nuclear Operating Company (the licensee), submitted information summarizing the results of the spring 2018 steam generator (SG) inspections at South Texas Project (STP), Unit 2. These inspections were performed during refueling outage 19.

The four model Delta 94 SGs at STP, Unit 2, were designed by Westinghouse and installed in December 2002. These replacement SGs each contain 7,585 thermally treated Alloy 690 tubes. The tubes have a nominal outside diameter of 0.688 inches, a nominal wall thickness of 0.040 inches, and are supported by stainless steel tube support plates with trefoil-shaped holes. The U-bends of the tubes in rows 1 through 17 were thermally stress relieved after bending.

The licensee provided the scope, extent, methods, and results of its SG tube inspections in the letter dated October 18, 2018. In addition, the licensee described corrective actions, such as tube plugging, taken in response to the inspection findings.

Based on the U.S. Nuclear Regulatory Commission (NRC) staff's review of the information provided by the licensee, the staff has the following observations and comments:

- A ding (DNG) is a baseline indication where the tubing inside diameter is less than normal. The degradation assessment specified that all DNGs greater than 5 volts, which were reported in the baseline examination, would be inspected with a +Point™ probe coil. The licensee reported eight DNGs in the STP, Unit 2, SGs with greater than 5-volt signals and that they were inspected with a +Point™ probe with no degradation identified.
- The licensee reported that use of the dent (DNT) indication code has been discontinued. Prior cycle DNT indications are now associated with the DNG three-letter code.
- While performing inspections inside SG 2C, the battery compartment latch of an inspection camera opened, and a lithium battery fell into the tube bundle. Retrieval efforts were unsuccessful, and the battery was dispositioned to remain in the SG by engineering analysis. Chemistry impacts were expected to be minimal, and a loose part wear analysis predicted that structural integrity limits would be maintained over the next three operating cycles. During startup operations, dissolution of the lithium-ion battery occurred and all impurities identified during the reactor heatup were reduced to acceptable levels, prior to exceeding 20 percent power.

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 staff concludes there are no technical issues that warrant 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 2 – REVIEW OF THE SPRING 2018 STEAM GENERATOR INSPECTIONS (EPID L-2018-LRO-0041) DATED MARCH 27, 2019

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ADAMS Accession No. ML19071A171

*by memorandum

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