

April 20, 2006

Mr. James J. Sheppard
President and Chief Executive Officer
STP Nuclear Operating Company
South Texas Project Electric
Generating Station
P. O. Box 289
Wadsworth, TX 77483

SUBJECT: SOUTH TEXAS PROJECT, UNIT 1 - RE: EVALUATION OF THE 2005 STEAM
GENERATOR TUBE INSPECTIONS (TAC NO. MC8622)

Dear Mr. Sheppard:

By letters dated October 12, 2005, and February 28, 2006, STP Nuclear Operating Company, the licensee for South Texas Project (STP), submitted information summarizing the results of its 2005 steam generator tube inspections at STP Unit 1.

The 2005 tube inspections were performed during refueling outage 12. In addition to these reports, the U.S. Nuclear Regulatory Commission (NRC) staff summarized additional information in a letter dated May 27, 2005. The additional summarized information related to the 2005 steam generator tube inspections of foreign objects found in the steam generators.

The NRC staff has completed its review of these reports and concludes that the licensee provided the information required by its technical specifications and that no additional follow-up is required at this time. The staff's evaluation of the licensee's reports is enclosed.

If you have any questions concerning the enclosed NRC staff's evaluation, please contact me at (301) 415-1476.

This completes our effort under TAC No. MC8622.

Sincerely,

/RA/

Mohan C. Thadani, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No.: 50-498

Enclosure:
Summary of Staff's Evaluation

cc w/encl: See next page

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ACCESSION NO: **ML060950427**

* No significant change in the SE input

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SUMMARY OF STAFF'S EVALUATION
BY THE OFFICE OF NUCLEAR REACTOR REGULATION
2005 STEAM GENERATOR TUBE INSPECTIONS
STP NUCLEAR OPERATING COMPANY
SOUTH TEXAS PROJECT, UNIT 1
DOCKET NO. 50-498

By letters dated October 12, 2005 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML052910372), and February 28, 2006 (ADAMS Accession No. ML060660182), STP Nuclear Operating Company, the licensee for South Texas Project, Unit 1 (STP), submitted information summarizing the results of its 2005 steam generator (SG) tube inspections at STP.

The 2005 tube inspections were performed during refueling outage (RFO) 12. In addition to these reports, the U.S. Nuclear Regulatory Commission (NRC) staff summarized additional information concerning the 2005 SG tube inspections in a letter dated May 27, 2005 (ADAMS Accession No. ML051510378). The additional summarized information related to the 2005 SG tube inspections of foreign objects found in the SGs.

STP has four recirculating SGs designed and fabricated by the Westinghouse Electric Company. The model Delta 94 SGs were put into service in 2000 during RFO 9. Each SG has 7,585 thermally treated Alloy 690 tubes that have an outside diameter of 0.688-inch and a nominal wall thickness of 0.040-inch. The tubes were hydraulically expanded at each end for the full depth of the tubesheet and are supported by a flow distribution baffle, support plates, and anti-vibration bars.

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

As a result of the review of the reports, the NRC staff has the following comments/observations:

No primary or secondary inspections were performed during the last RFO (RFO 11). For the 2005 RFO 12, sludge lancing and post lancing Foreign Object Search and Retrieval (FOSAR) was scheduled for all four SGs. No primary side tube inspections were scheduled for RFO 12.

Several hundred small wire fragments were identified in SG-D. The wire fragments were attributed to a feedwater cable stabilizer that migrated into SG-D during cycle 11 prior to or during the shutdown for RFO 11.

Based on the FOSAR and visual identification of a wear scar, eddy current inspections were performed in SG-D. The bobbin inspections focused on the straight run of the tubes (i.e., up to the top tube support plate) to look for evidence of foreign material and wear from foreign material. Full length tube inspections were only performed on 56 tubes.

The licensee indicated that the eddy current inspection plan was not intended for surveillance credit. Based on the information provided in the submittal, the staff understood this statement to mean that the inspections were not intended to satisfy the periodic requirement to inspect the tubes; however, the results were used to verify the as-found and continued acceptability of the tubes until the next scheduled tube inspections.

Based on the review of the information provided, the staff concludes that the licensee provided the information required by its technical specifications. In addition, the staff concludes that there are no technical issues that warrant follow-up 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.

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Date: April 20, 2006

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