May 8, 2002

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter) Docket No. 50-328
Tennessee Valley Authority)

SEQUOYAH NUCLEAR PLANT (SQN) - UNIT 2 STEAM GENERATOR (SG) TUBE PLUGGING REPORT - SG TUBE INSPECTIONS DURING UNIT 2 CYCLE 11 REFUELING OUTAGE

As required by SQN Technical Specification (TS) 4.4.5.5.a, a summary report of SG tube plugging during the Unit 2 Cycle 11 refueling outage is being provided by Enclosure 1. The inservice inspection of the Unit 2 SG tubes was completed on April 30, 2002. In accordance with SQN TS 4.4.5.5.b, TVA will submit a special report of the results from this inspection on or before April 30, 2003.

Pursuant to the reporting requirements of TS 4.4.5.5.c, NRC was notified of the SG tube inspections that fell into Category C-3. Notification of these results was made during a telephone conference call on April 29, 2002. The Category C-3 follow-up report is being provided by Enclosure 2.

This letter is being sent in accordance with NRC RIS 2001-05. Please direct questions concerning this issue to me at (423) 843-7170 or J. D. Smith at (423) 843-6672.

Sincerely,

Pedro Salas
Site Licensing and Industry Affairs Manager

Enclosures

ENCLOSURE 1

SEQUOYAH NUCLEAR PLANT

UNIT 2 CYCLE 11 (U2C11) REFUELING OUTAGE

STEAM GENERATOR TUBE PLUGGING REPORT

NUMBER OF TUBES PLUGGED FROM THE U2C11 INSPECTIONS BY STEAM GENERATOR

Steam Generator No. 1: 20

Steam Generator No. 2: 19

Steam Generator No. 3: 18

Steam Generator No. 4: 34

Total Number of Tubes Plugged from U2C11 Steam Generator Inspections: 91

ENCLOSURE 2

SEQUOYAH NUCLEAR PLANT

UNIT 2 CYCLE 11 REFUELING OUTAGE

FOLLOW-UP REPORT FOR TS 4.4.5.5.c

STEAM GENERATOR (SG) CATEGORY C-3

In accordance with Technical Specification (TS) Section 4.4.5.5.c, TVA reported to the NRC by teleconference that Unit 2 SGs had entered into Category C-3. SG No. 1 entered C-3 for U-bend Plus Point inspection; SG No. 2 entered C-3 for dented support plate inspection; SG No. 3 entered C-3 for freespan ding inspection; and SG No. 4 entered C-3 for Bobbin Coil inspection. Below is a description of conditions and corrective measures for each Category C-3 entry.

The U-Bend Plus Point inspection was categorized as C-3 for SG No. 1. This SG had three Row 1 tubes with U-Bend primary water stress corrosion cracking (PWSCC). Since the original inspection scope for low row U-Bends is 281 tubes, this inspection was categorized as C-3. No expansion was necessary because 100% of Rows 1, 2, and 3 were inspected; and 20% of Row 4 were inspected in the initial sample. PWSCC at inner radius U-Bends is directly related to cold work and residual stresses associated with the tubing manufacturing technique. The Unit 2 SG Row 1 and 2 U-Bends, operated in this condition for multiple cycles and subsequently were in situ stress relieved as a corrective measure. Cracking had initiated prior to stress relief and continues to grow to detectable levels. The 100% inspection ensures that significant flaws were removed from service.

The dented tube support plate inspection was categorized as C-3 for SG No. 2 because of the very small sample size due to the small number of dented intersections in the Unit 2 SGs. The initial sample for dented tube support plates in SG No. 2 was 92 tubes. One indication was identified in SG No. 2 that required plugging, which is greater than 1% degraded. No expansion was required because a 100% inspection of hot leg dented intersections is performed. This inspection ensures that significant flaws were removed from service.

The freespan ding inspection was categorized as C-3 for SG No. 3 because of the very small sample size due to the small number of freespan dings in the Unit 2 SGs. The initial sample for freespan dings in SG No. 3 was 15 tubes. One indication was identified in

SG No. 3 that required plugging, which is greater than 1% degraded. Expansion was required because this inspection was a 20% sample of freespan dings. The expansion included 100% of the hot leg freespan dings greater than 5 volts. The less than 5-volt dings are inspected by a qualified Bobbin technique. This 100% inspection ensures that significant flaws were removed from service.

The Bobbin inspection was categorized as C-3 for SG No. 4 because greater than 10% of the tubes inspected were considered degraded. Generic Letter 95-05 and SQN TS Change 95-23 allows axial outer-diameter stress corrosion cracking indications inside tube support plates to be left in service. TVA conservatively considers these tubes to be degraded. No expansion is required because a full length inspection of 100% of the tubes is performed. This inspection ensures that significant flaws were removed from service.