

February 7, 2005

Mr. Karl W. Singer
Chief Nuclear Officer and
Executive Vice President
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 1 - UPCOMING STEAM GENERATOR
TUBE INSERVICE INSPECTION (TAC NO. MC5629)

Dear Mr. Singer:

Inservice inspections of steam generator (SG) tubes play a vital role in assuring that adequate structural integrity of the tubes is maintained. As required by the plant Technical Specifications, reporting requirements range from submitting a special report within 15 days following completion of each inservice inspection of SG tubes, that identifies the number of tubes plugged and/or repaired; to submitting a special report within 12 months following completion of the inspection, that provides complete results of the SG tube inservice inspection. The special report containing the complete results shall include the following:

1. Number and extent of tubes inspected.
2. Location and percent of wall-thickness penetration for each indication of an imperfection.
3. Identification of tubes plugged and/or repaired.

A phone conference has been arranged with members of your staff to discuss the ongoing results of the SG tube inspections to be conducted during the upcoming Watts Bar Nuclear Plant, Unit 1 refueling outage. This phone call will occur after the majority of the tubes have been inspected, but before the SG inspection activities have been completed. Enclosed is a list of discussion points to facilitate this phone conference.

The staff plans to document a brief summary of the conference call as well as any material that you may have provided to the staff in support of the call.

Sincerely,

/RA/

Douglas V. Pickett, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-390

Enclosure: List of Discussion Points

cc w/encl: See next page

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ADAMS ACCESSION NO. ML050140041

NRR-106

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Tennessee Valley Authority

WATTS BAR NUCLEAR PLANT

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STEAM GENERATOR TUBE INSPECTION DISCUSSION POINTS

PREPARED BY THE OFFICE OF NUCLEAR REACTOR REGULATION

TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-390

The following discussion points have been prepared to facilitate the phone conference arranged with the Watts Bar licensee to discuss the results of the steam generator (SG) tube inspections to be conducted during the upcoming Watts Bar Nuclear Plant, Unit 1 refueling outage. This phone call is scheduled to occur towards the end of the planned SG tube inspection interval, but before the unit completes the inspections and repairs.

The staff plans to document a brief summary of the conference call as well as any material that is provided in support of the call.

1. Discuss any trends in the amount of primary-to-secondary leakage observed during the recently completed cycle.
2. Discuss whether any secondary side pressure tests were performed during the outage and the associated results.
3. Discuss any exceptions taken to the industry guidelines.
4. For each SG, provide a description of the inspections performed including the areas examined and the probes used (e.g., dents/dings, sleeves, expansion-transition, U-bends with a rotating probe), the scope of the inspection (e.g., 100 percent of dents/dings greater than 5 volts and a 20 percent sample between 2 and 5 volts), and the expansion criteria. Also, discuss the extent of the rotating probe inspections performed in the portion of tube below the expansion transition region (reference Nuclear Regulatory Commission (NRC) Generic Letter 2004-01, "Requirements for Steam Generator Tube Inspections").
5. For each area examined (e.g., tube supports, dent/dings, sleeves, etc.), provide a summary of the number of indications identified to-date of each degradation mode (e.g., number of circumferential primary water stress corrosion cracking indications at the expansion transition). For the most significant indications in each area, provide an estimate of the severity of the indication (e.g., provide the voltage, depth, and length of the indication). In particular, address whether tube integrity (structural and accident induced leakage integrity) was maintained during the previous operating cycle. In

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addition, discuss whether any location exhibited a degradation mode that had not previously been observed at this location at this unit (e.g., observed circumferential primary water stress corrosion cracking at the expansion transition for the first time at this unit).

6. Describe repair/plugging plans.
7. Describe in situ pressure test and tube pull plans and results (as applicable and if available).
8. Provide the schedule for SG-related activities during the remainder of the current outage.
9. Discuss the following regarding loose parts:
 - what inspections are performed to detect loose parts
 - a description of any loose parts detected and their location within the SG
 - if the loose parts were removed from the SG
 - indications of tube damage associated with the loose parts
 - the source or nature of the loose parts if known
10. If you have Babcock and Wilcox (B&W) welded plugs installed in the SGs, be prepared to discuss the actions taken in response to Framatome's notification of the effect of tubesheet hole dilation on the service life of B&W welded plugs.
11. If steam generators contain thermally treated tubing (Alloy 600 or 690), discuss actions taken (if any) based on Seabrook's recent findings (Reference NRC Information Notice 2002-21).