

September 12, 2001

LICENSEE: Tennessee Valley Authority

FACILITY: Watt Bar Nuclear Plant, Unit 1

SUBJECT: SUMMARY OF THE JULY 17, 2001, MEETING ON STEAM GENERATOR
TUBE ALTERNATE REPAIR CRITERIA

On July 17, 2001, the U.S. Nuclear Regulatory Commission (NRC) staff and the Tennessee Valley Authority (TVA) staff met at the NRC Headquarters in Rockville, Maryland, to discuss TVA's request to use steam generator tube alternate repair criteria at the Watts Bar Plant.

The topics discussed included pressurization rate during tube-burst tests; inspection of dented tube-support plate intersections; and dose calculations. Enclosure 1 contains pertinent information on, and a list of additional actions needed to help resolve, these issues. Enclosure 2 is a list of the individuals who attended the meeting and Enclosure 3 is TVA's handout material.

/RA/

L. Mark Padovan, Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-390

Enclosures: 1. Information and Actions
2. Attendance List
3. TVA's Handouts

cc w/enclosure: See next page

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**Information and Actions to Help Resolve Watts Bar Steam Generator (SG)
Alternate Repair Criteria (ARC) Issues**

1. The NRC staff would like to receive Electric Power Research Institute's (EPRI's) and Tennessee Valley Authority's (TVA's) reports on pressurization rate effects on tube support plate outer-diameter stress-corrosion cracking (ODSCC). TVA said that they could give us these reports by mid-August and would attach them to their response to our request for additional information.
2. The staff plans to ask its Office of Research, specifically Argonne National Laboratory, to review the results provided in the EPRI and TVA reports.
3. NRC staff is concerned with specific aspects of TVA's study that it intends to focus on in its review. These aspects are:
 - a) the representativeness of the trapezoidal-shape part-through-wall flaws used for pressurization rate testing to the actual conditions of flaws in the ODSCC data base
 - b) a lack of understanding of the threshold flaw profile configurations that would begin to demonstrate pressurization rate or foil reinforcement effects
4. TVA said that they would put additional information in the TVA report including actual profiles in the ODSCC database for flaws that have either a maximum depth exceeding 90% or an average depth exceeding about 60% to address concern 3.a), above. For concern 3.b), TVA said they would give us analyses results that will provide insights into the mechanistic causes under certain flaw profile conditions for the existence of pressurization rate or foil reinforcement effects.
5. NRC staff said that it would not be possible to estimate when we will complete our SG ARC review. We first need to review the EPRI and TVA reports that TVA will send us in August. We expect to do this by the end of October. The staff indicated that it would either approve or deny TVA's amendment request by the end of January 2002.
6. The staff indicated that it did not have any comments regarding TVA's tube support plate dented intersection inspection.
7. TVA also said that "Watts Bar needs the ODSCC ARC approval for their February 2002 SG inspection. This ARC is necessary for Watts Bar to maintain full-power operation to a reasonable replacement date. Based on industry experience, this mechanism increases exponentially once it is detected. Some plants have seen as many as 600 the first time they were detected. The cracks are structurally insignificant, and we would be plugging great numbers of tubes unnecessarily. Watts Bar is one of only a couple of Westinghouse plants with SGs with drilled support plates that do not have this ARC."

U. S. NUCLEAR REGULATORY COMMISSION AND TENNESSEE VALLEY AUTHORITY

MEETING REGARDING USE OF STEAM GENERATOR ALTERNATE REPAIR CRITERIA

JULY 17, 2001

ATTENDEES

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Louise Lund	NRC/NRR
John Tsao	NRC/NRR
Edmund Sullivan	NRC/NRR
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Donald Fickey	TVA
Tom Pitterle	Westinghouse
Jim Begley	Foreline Associates
Emmett Murphy	NRC/NRR
Jim Riley	Nuclear Energy Institute
Paul Pace	TVA
L. Mark Padovan	NRC/NRR
Leta Brown	NRC/NRR
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Tennessee Valley Authority

WATTS BAR NUCLEAR PLANT

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