

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

December 20, 1982

Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

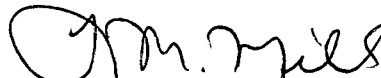
In the Matter of the Application of) Docket Nos. 50-390
Tennessee Valley Authority) 50-391

Enclosed for NRC information is a status report on proposed modifications to the Model D Steam Generators at Watts Bar Nuclear Plant. We anticipate providing a report specifying final resolution of this issue in January 1983.

If you have any questions concerning this matter, please get in touch with D. P. Ormsby at FTS 858-2682.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 20th day of December 1982

Paulette H. White
Notary Public

My Commission Expires 9-5-84

Enclosure

cc: U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 MODEL D STEAM GENERATOR TUBE DEGRADATION

TVA, as a member of the Independent Review Team (TVA, Duke Power Company, and South Carolina Electric and Gas), has remained apprised of the Westinghouse effort to reduce flow-induced vibration and tube wear problems in Model D-2 and D-3 steam generators.

The principal elements of the proposed Westinghouse modification to the steam generators includes the following steps (balance-of-plant work not included):

1. Remove the existing 4-hole backflow resistor from the feedwater nozzle.
2. Remove the impingement plate assembly in the steam generator.
3. Install a manifold assembly in the steam generator.
4. Install a new backflow restrictor (19 holes) in the feedwater nozzle.

Flow testing of the purposed modification by Westinghouse has been completed; however, Westinghouse has experienced problems in the structural analysis of the manifold assembly proposed for installation in the steam generator. If additional significant design changes are required, additional flow tests may be needed.

The design concept of the modifications appears to be acceptable. While it does not completely eliminate flow-induced vibration and corresponding tube wear, it appears that it will limit plugging to 1-2 percent of the tubes over 40-year plant life.

The present schedule of the proposed design is:

Mid-December 1982 - Westinghouse internal review will be complete and stress reports transmitted to the Independent Review Team.

Early January 1983 - Independent review complete and final information presented to NRC.

In order to minimize the impact on the Watts Bar construction schedule, TVA has chosen to make the steam generator modification after hot functional testing. A meeting is scheduled with Westinghouse for mid or late February 1983 to establish a firm schedule for Watts Bar.