

Tennessee Valley Authority Post Office Box 2000, Spring City Tennessee 37381

## JUL 0 5 1994

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

Gentlemen:

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

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 - NRC BULLETIN 88-11 - PRESSURIZER SURGE LINE THERMAL STRATIFICATION (TAC NO. M72181)

This letter provides the results of the gap measurements performed on the Unit 1 pressurizer surge line restraints during hot functional testing as committed in TVA's letter dated March 30, 1992.

Item 2a of the subject bulletin requested that applicants demonstrate that the pressurizer surge line meets the applicable design codes and other Final Safety Analysis Report (FSAR) and regulatory commitments for the licensed life of the plant. This demonstration was to be accomplished by performing plant specific fatigue and stress analysis that considered the phenomenon of thermal stratification and thermal striping and verifying the results of the analysis during hot functional testing to ensure that no contact between the surge line and the pipe whip restraints was taking place. The WBN plant specific analysis that demonstrated code compliance was provided to the NRC in the March 30, 1992, letter. The NRC's safety evaluation was provided in a letter dated October 30, 1992.

During hot functional testing, the gaps were monitored between the surge line and the associated pipe whip restraints at preselected locations. The results of the measurements indicated no contact between the surge line and pipe whip restraints. Additionally, the lateral thermal movement of the surge line was monitored at two different locations. The movement observed at the monitoring points agreed (within defined tolerances) with the movements predicted by analysis. Therefore, the thermal deflection of the surge line piping during hot functional testing did not result in any

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U.S. Nuclear Regulatory Commission Page 2

JUL 0 5 1994

adverse consequences and the results of the analysis demonstrating compliance with applicable ASME Code stress and fatigue limits remain valid.

No commitments are identified in this letter. If you should have any questions, please telephone John Vorees at (615)-365-8819.

Sincerely,

Dwight E. Num Vice President New Plant Completion Watts Bar Nuclear Plant

cc: NRC Resident Inspector Watts Bar Nuclear Plant Rt. 2, Box 700 Spring City, Tennessee 37381

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