

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

6N 38A Lookout Place

AUG 06 1990

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

Gentlemen:

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

WATTS BAR NUCLEAR PLANT (WBN) - NRC BULLETIN 88-08 - THERMAL STRESSES IN
PIPING CONNECTED TO REACTOR COOLANT SYSTEMS

This letter provides TVA's response to the subject bulletin for WBN. A review of the Unit 1 systems connected to the Reactor Coolant System (RCS) has been completed, as required in Item 1 of the Actions Requested of the bulletin. Seven unisolable sections of piping have been identified as being susceptible to thermal stratification. These are:

1. Boron Injection Piping - 1 1/2-inch diameter, typical four loops
2. Pressurizer Spray Piping - 2-inch diameter
3. Normal and Auxiliary Charging - 3-inch diameter, loops one and four respectively

TVA has determined that Item 2 of the Actions Requested section of the bulletin is not necessary for WBN, since WBN is a construction plant, and therefore, has not experienced excessive thermal stresses. Thermal cycles induced during hot functional testing are not considered to be excessive.

Item 3 of the Actions Requested consists of planning and implementing a program to prevent possible thermal stratification in the affected sections of piping connected to the RCS. This program, which is currently in the conceptual stage for WBN, will be implemented before initial criticality of the respective units and should preclude the need for any future nondestructive testing of the welds as described in Item 2 of Actions Requested. TVA will review Item 1 of the Actions Requested for Unit 2 to identify those systems connected to the RCS that have the potential for thermal stratification. That review will consider any lessons learned from the implementation of the above program for Unit 1.

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The enclosure provides a summary of the commitments identified by this letter. If you have any questions concerning this matter, please telephone M. C. Bryan at (615) 365-8819.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


Mark O. Medford, Vice President
Nuclear Technology and Licensing

Subscribed and sworn to before me

on this 6th day of August 1990

Sandra D. Burk
Notary Public

My Commission Expires 11/4/92

Enclosures

cc (Enclosures):

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ENCLOSURE

LIST OF COMMITMENTS

1. TVA will implement a program to prevent thermal stratification as required by Item 3 of Actions Requested for Unit 1 before initial criticality.
2. TVA will implement a program to prevent thermal stratification for Unit 2 as required by Item 3 of Actions Requested before initial criticality of Unit 2.
3. TVA will review Item 1 of Actions Requested for Unit 2 to identify those systems connected to the Reactor Coolant System (RCS) that have the potential for thermal stratification and will consider any lesson learned from the implementation of the Unit 1 program.