



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

John H. Garrity
Vice President, Watts Bar Nuclear Plant

APR 06 1992

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) UNITS 1 AND 2 - RESPONSE TO STAFF POSITION
REGARDING DUCTILITY RATIO CRITERIA FOR STRUCTURAL STEEL - OUTSTANDING
ISSUE 19(j) - (TAC M79717)

Reference: Letter from Peter Tam to D. A. Nauman dated January 27, 1992,
Staff Position Regarding Ductility Ratio Criteria for
Structural Steel, Outstanding Issue 19(j) (TAC M79717)

TVA proposed the use of nonlinear methods to evaluate the effects of
thermal loading of structural steel at WBN. By the referenced
correspondence, NRC indicated that TVA's proposed structural steel
thermal evaluation criteria for WBN did not assure consistency with the
Standard Review Plan (SRP), Section 3.8.4, and was not acceptable.

In the interest of moving forward with WBN licensing activities, TVA has
decided to use methodologies consistent with the SRP. The applicability
of this position to WBN does not warrant the effort to resolve the
technical differences between TVA and NRC at this time. However,
circumstances may differ at other TVA facilities, particularly operating
nuclear plants, and TVA may seek to justify further use of nonlinear
techniques at those facilities.

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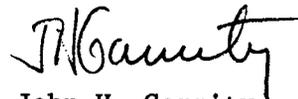
U.S. Nuclear Regulatory Commission

Accordingly, WBN will be utilizing the linear elastic provisions of Design Guide DG-C1.6.12, Revision 1, entitled "Evaluation of Steel Structures with Thermal Restraint," except for the energy balance provisions of Section C2.3.1. This design guide has been reviewed by the staff during the September 9-13, 1991 calculation audit, as documented in the NRC audit report of January 31, 1992.

The Watts Bar Final Safety Analysis Report and design criteria will be revised to delete the use of nonlinear analysis provisions for the evaluation of thermal effects on structural steel.

If you have any questions, please telephone P. L. Pace at (615) 365-1824.

Sincerely,


John H. Garrity

Enclosure

cc (Enclosure):

NRC Resident Inspector
Watts Bar Nuclear Plant
P.O. Box 700
Spring City, Tennessee 37381

Mr. P. S. Tam, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. B. A. Wilson, Project Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

ENCLOSURE

LIST OF COMMITMENTS

NRC OUTSTANDING ISSUE 19(j)
STRUCTURAL STEEL THERMAL EVALUATION CRITERIA

TVA will revise the Final Safety Analysis Report and design criteria to delete the use of nonlinear analysis provisions for the evaluation of thermal effects on structural steel.