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

DEC 23 1994

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

Gentlemen:

In the Matter of the Application of) Docket No. 50-390
Tennessee Valley Authority)

WATTS BAR NUCLEAR PLANT (WBN) - WATTS BAR UNIT 1 HEATUP AND COOLDOWN LIMIT CURVES FOR NORMAL OPERATION

The purpose of this letter is to withdraw TVA's previous request for exemption from certain requirements of 10 CFR 50.60, "Acceptance criteria for fracture prevention measures for lightwater nuclear power reactors for normal operation," and provide the current WBN Unit 1 heatup and cooldown curves. In addition, TVA is submitting WCAP-14040, Revision 1, "Methodology Used To Develop Cold Overpressure Mitigating System Setpoints and RCS Heatup and Cooldown Limit Curves," for NRC review and approval to support issuance of the Technical Specifications. The methodology identified in WCAP-14040 was used for the development of the Watts Bar Reactor Coolant System Pressure and Temperature Limits Report (PTLR), Revision 2.

In a letter dated March 10, 1994, TVA requested that American Society of Mechanical Engineers (ASME) Code Case N-514, "Low Temperature Overpressure Protection," be applied to determine the acceptable low temperature overpressure protection (LTOP) setpoints for WBN. Subsequently, the Staff stated that the additional margin allowed by the code case would not be appropriate at this time. The margin is generally needed only after a plant has operated for a period of time when the cumulative effects of reactor vessel irradiation severely restrict the operating window for heatup or cooldown.

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TVA, through Westinghouse, has calculated the cooldown and heatup curves based on 1.5 effective full power years (EFPYs). A comparison of the 1.5 EFPY curves to the 7 EFPY curves, which included Code Case N-514, indicates that the 7 EFPY Appendix G curves with LTOP setpoints derived using Code Case N-514 are more conservative for the first 1.5 EFPY. In order to use the setpoints currently established, TVA will operate for the first 1.5 EFPY using the PTLR setpoints established by the 7 EFPY curves.

TVA will (1) revise the Final Safety Analysis Report (FSAR) to address the use of the PTLR in accordance with the Technical Specifications and (2) evaluate the continued applicability of the LTOP setpoints prior to exceeding 1.5 EFPY.

Enclosure 1 is a copy of Westinghouse WCAP-14176, "Watts Bar Unit 1 Heatup and Cooldown Limit Curves for Normal Operation," for the first 1.5 EFPY. Enclosure 2 is Revision 2 of the Watts Bar Unit 1 PTLR. Enclosure 3 is a copy of Westinghouse WCAP-14040, "Methodology Used To Develop Cold Overpressure Mitigating System Setpoints and RCS Heatup and Cooldown Limit Curves." Enclosure 4 is a markup of FSAR Page 5.2-39 which shows the applicable proposed change for incorporation in a future FSAR amendment. Enclosure 5 restates the commitments made in this letter.

If you should have any questions, please telephone John Vorees at (615)-365-8819.

Sincerely,

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

Enclosures
cc (Enclosures):

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