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

AUG 2 1 2003

TVA-WBN-TS-02-13

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

10 CFR 50.90

Gentlemen:

In the Matter of)
Tennessee Valley Authority)

Docket No. 50-390

WATTS BAR NUCLEAR PLANT (WBN) - UNIT 1 - TECHNICAL SPECIFICATION (TS) CHANGE NO. TS-02-13 - ROBUST FUEL ASSEMBLY (RFA)-2 UPGRADE – REVISED PAGE (TAC-MB7746)

Reference: TVA Letter to NRC, "WBN - UNIT 1 - Technical Specification (TS) Change No. TS-02-13 - Revise Section 5.9.5 to Incorporate Analytical Methods for Robust Fuel Assembly (RFA)-2 Upgrade," February 14, 2003.

The purpose of this letter is to provide a revised replacement page for the referenced TS amendment request, as recently discussed with NRC Staff. The revised page is provided in the Enclosure and replaces Page 7-6 in the Attachment (Safety Evaluation) of the referenced letter. This revision removes the description of TPBAR impact on post-LOCA subcriticality (last paragraph of Section 7.5.2.3), since the RFA-2 with IFM fuel product is independent of this analysis. This change does not impact the "No Significant Hazards Criteria Evaluation" provided in the referenced amendment request.

There are no regulatory commitments associated with this submittal. If you have any questions about this proposed change, please contact me at (423) 365-1824.

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I declare under penalty of perjury that the foregoing is true and correct. Executed on this 21st day of August, 2003.

Sincerely,

P. L. Pace
Manager, Site Licensing
and Industry Affairs

Enclosure
Robust Fuel Assembly (RFA)-2 Fuel Upgrade – TS-02-13 (TAC-MB7746) - Replacement Page

cc: See page 3

cc (Enclosure):

NRC Resident Inspector
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ENCLOSURE

TENNESSEE VALLEY AUTHORITY
WATTS BAR NUCLEAR PLANT (WBN)
UNIT 1
DOCKET NO. 390

ROBUST FUEL ASSEMBLY (RFA)-2 FUEL UPGRADE – TS-02-13 (TAC-MB7746)
REPLACEMENT PAGE

Remove Page 7-6, Revision 1, in the Attachment to TVA's February 14, 2003, Letter to NRC, and replace with the attached Page 7-6, Revision 2.

concentration was increased from 2400 ppm to 3500 ppm. With the increases in minimum boron concentration in the RWST and accumulators, a new post-LOCA sump boron curve was calculated. This new curve will serve as the reload limit for future Watts Bar core designs.

The introduction of RFA-2 fuel has a negligible impact on the core reactivity and, therefore, has no effect on the post-LOCA subcriticality evaluation.

7.5.2.4 Hot Leg Switchover to Prevent Potential Boron Precipitation

The hot leg switchover (HLSO) procedure is initiated to preclude the possibility of boron precipitation in the reactor vessel core region following a LOCA. The key inputs to this calculation include:

- the maximum volumes and boron concentrations of the various sources of borated water which could arrive in the sump post-LOCA,
- the minimum volumes of various dilution sources which could arrive in the sump post-LOCA,
- the mixing volume of the core region in the vessel, and,
- the maximum core power level (prior to the LOCA).

For the implementation of TPBARs, the maximum RWST and accumulator boron concentrations were increased from 2700 ppm to 3800 ppm. With the increases in maximum boron concentration in the RWST and accumulators, a new HLSO time was calculated. The evaluation, which used the new RWST and accumulator boron concentrations and the Appendix K decay heat assumption, resulted in a HLSO time of 4.16 hours, which was reduced to 3.0 hours for further margin to the boron precipitation limit. The minimum flow requirements were evaluated at the new hot leg switchover time. It was determined that the minimum flow requirements were satisfied for a HLSO time of 3.0 hours. This calculation is applicable to both V5H and RFA-2 fuel types.