



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

April 11, 1997

TVA-BFN-TS-353S1

10 CFR 50.4
10 CFR 50.90
10 CFR 50.91

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

Gentlemen:

In the Matter of)	Docket Nos. 50-259
Tennessee Valley Authority)	50-260
		50-296

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 1, 2, AND 3 -
TECHNICAL SPECIFICATIONS (TS) CHANGE 353S1 - POWER RANGE
NEUTRON MONITOR (PRNM) UPGRADE WITH IMPLEMENTATION OF AVERAGE
POWER RANGE MONITOR (APRM) AND ROD BLOCK MONITOR (RBM) TS
(ARTS) IMPROVEMENTS AND MAXIMUM EXTENDED LOAD LINE LIMIT
(MELLL) ANALYSES - SUPPLEMENT 1 - IMPROVED STANDARD TECHNICAL
SPECIFICATIONS (ISTS) FORMAT**

On June 2, 1995, TVA submitted amendment request TS-353 (Enclosure 1, Reference 1) to licenses DPR-33, DPR-52, and DPR-68 to revise the existing custom TS for Units 1, 2, and 3 to include changes associated with implementation of the PRNM upgrade, and to incorporate changes related to ARTS and MELLL Analyses. A revision to TS-353 was submitted on March 6, 1997 as TS 353R1. This letter provides the proposed TS changes in ISTS format for the same PRNM and ARTS/MELLL changes.

These proposed TS include the necessary revisions for the planned replacement of the power range monitoring portion of the existing Neutron Monitoring System with the advanced digital PRNM upgrade. Implementation of the PRNM system will allow TVA to proceed with implementation of the long-term stability solution designated as Option III in NEDO-31960 and NEDO-31960, Supplement 1, "BWR Owners' Group Long Term Stability Solution Licensing Methodology" relating to Generic Letter 94-02.

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The PRNM upgrade will be installed first during the Fall 1997 Unit 2 refueling outage for operation during the following fuel cycle (10). During cycle 10, all PRNM functions will be in service with the exception of the stability monitor trip functions of the Oscillation Power Range Monitor (OPRM) module of the PRNM. The OPRM trip function will be operated in the "indicate only" mode for one cycle, and be fully enabled for cycle 11 operation. For Unit 3, the PRNM will be installed in the Fall of 1998 for operation in cycle 9. The OPRM trips will be enabled for the following fuel cycle. Prior to enabling the OPRM trip function, related TS changes will be submitted.

TS-353 was based, in part, on Licensing Topical Report NEDC-32410P, Nuclear Measurement Analysis and Control Power Range Neutron Monitor (NUMAC PRNM) Retrofit Plus Option III Stability Trip Functions, March 1995. NEDC-32410P, as subsequently supplemented, was formally accepted for use in licensing applications as documented in an NRC Safety Evaluation Report (SER) dated September 5, 1995. This submittal also endorses the use of NEDC-32410P (issued as NEDC-32410P-A) as a basis for the proposed PRNM system TS changes.

Additionally, these proposed TS changes are needed for TVA's planned implementation of the ARTS/MELLL improvements. The purpose of the ARTS/MELLL changes is to enhance operating flexibility and efficiency by implementing RBM design improvements, incorporating APRM/RBM TS improvements, and expanding the current allowable operating domain to the MELLL region of the power/flow map. NEDC-32433P, Maximum Extended Load Line Limit and ARTS Improvement Program Analyses for Browns Ferry Nuclear Plant Unit 1, 2, and 3, was provided in the previous TS-353 submittals and continues to be the primary basis document for the ARTS/MELLL changes.

Enclosure 1 to this letter provides the description and evaluation of the proposed change, the significant hazards and environmental impact considerations, and other supporting information. Attachment 1 of Enclosure 1 includes a confirmation of several plant-specific actions as required by the SER for NEDC-32410P.

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Enclosure 2 contains copies of the appropriate marked-up TS pages from the Units 1, 2, and 3 ISTS to show the proposed changes. Enclosure 3 forwards the revised TS pages for Units 1, 2, and 3 which incorporate the proposed changes. These TS changes are based on TS-362, submitted September 6, 1996, which is the conversion package of the custom BFN TS to ISTS format as described in NUREG-1433, Revision 1, "Standard Technical Specifications for General Electric Boiling Water Reactors (BWR/4)."

TVA has determined that there are no significant hazards considerations associated with the proposed change and that the change qualifies for a categorical exclusion from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9). The BFN Plant Operations Review Committee and the BFN Nuclear Safety Review Board have reviewed this proposed change and determined that operation of BFN Units 1, 2, and 3 in accordance with the proposed change will not endanger the health and safety of the public. Additionally, in accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter and enclosures to the Alabama State Department of Public Health.

TVA requests that the revised TS in ISTS format be approved and made effective in accordance with the following milestone schedule. However, since the implementation schedule for ISTS may be later than the restart of Unit 2 this coming Fall, approval of the requested TS changes in custom format (TS-353R1) may be necessary to support the installation of the PRNM system on Unit 2.

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Unit 1 - Effective at the same time as the effective date of ISTS (TS-362).

Unit 2 - Effective at the same time as the effective date of ISTS (TS-362).

Unit 3 - Effective prior to the restart of the Unit 3 in Cycle 9, (November 1998).

Unit 1 is currently in a non-operational status, and TVA has no specific installation schedule for Unit 1. However, since the subject modifications will be installed prior to the return of Unit 1 to service, we are requesting the Unit 1 changes be made effective at the same time as TS-362.

If you have any questions about this change, please contact me at (205) 729-2636.

Sincerely,

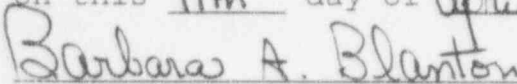


T. E. Abney
Manager of Licensing
and Industry Affairs

Enclosures

cc: see page 5

Subscribed and sworn to before me
on this 11th day of April 1997.



Notary Public

My Commission Expires My Commission Expires 10/06/98

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Enclosures

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