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SUBJECT: Provides revised description & evaluation of proposed change & no significant hazards determination. Encl 2 contains mark-up of affected Units 2 & 3 TS pages.

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

July 17, 1998

10 CFR 50.90

U.S. Nuclear Regulatory Commission  
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Gentlemen:

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

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 2 AND 3 TECHNICAL SPECIFICATIONS (TS) CHANGE-384 - REQUEST FOR LICENSE AMENDMENT FOR POWER UPRATE - SUPPLEMENT 2, REVISION 1**

Supplement 2 to TS-384 was submitted on June 26, 1998, and incorporated Limiting Condition for Operation (LCO) 3.4.10 (Reactor Steam Dome Pressure), an associated Surveillance Requirement 3.4.10.1, and corresponding Bases changes into the proposed power uprate TS-384 package. LCO 3.4.10 had been added to the base Improved Technical Specifications (ITS) conversion package by Supplement 5 to TS-362, dated November 14, 1997. Since this was later than the original submittal of TS-384 (October 1, 1997), it was necessary to also add the subject LCO to TS-384 to maintain consistency with ITS. Note that TS-362, ITS, was recently approved by NRC on July 14, 1998.

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Dobson

In response to NRC staff comments, we have revised Enclosure 1 of Supplement 2 to better describe and justify the proposed TS Section 3.4.10 changes as applied to power uprate. Also, a specific no significant hazards determination has been added.

Enclosure 1 to this letter provides the revised description and evaluation of the proposed change, and the no significant hazards determination. Enclosure 2 contains a mark-up of the affected Unit 2 and Unit 3 TS pages. These mark-ups are the same as those provided in the June 26, 1998, submittal and are included for completeness. Revised (word processed) pages

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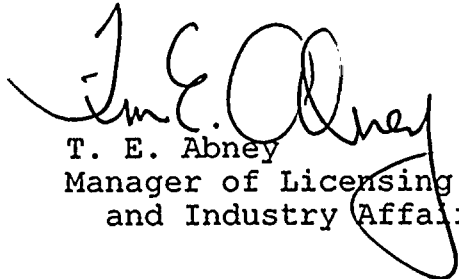
July 17, 1998

will be provided prior to NRC issuance of the power uprate license amendment.

TVA has determined that there are no significant hazards considerations associated with the proposed changes and that the changes do not alter the originally submitted Environmental Assessment. The BFN Plant Operations Review Committee and the BFN Nuclear Safety Review Board have previously reviewed this proposed change and determined that operation of BFN Units 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.

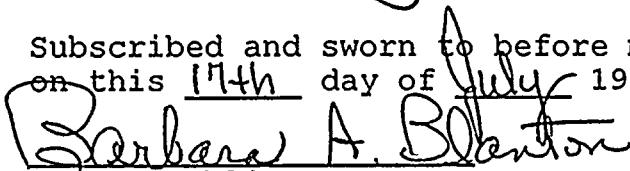
There are no commitments contained in this letter. If you have any questions, please contact me at (265) 729-2636.

Sincerely,



T. E. Abney  
Manager of Licensing  
and Industry Affairs

Subscribed and sworn to before me  
on this 17th day of July 1998.



Barbara A. Benton  
Notary Public

My Commission Expires 10/05/00

cc: See page 3

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Enclosures

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ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNITS 2 AND 3

PROPOSED TECHNICAL SPECIFICATIONS (TS) CHANGE  
TS-384 SUPPLEMENT 2, REVISION 1  
DESCRIPTION AND EVALUATION OF THE PROPOSED CHANGE

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I. DESCRIPTION OF THE PROPOSED CHANGES:

The proposed change adds Limiting Condition for Operation (LCO) 3.4.10, and accompanying TS and Bases provisions from the Improved TS (TS-362) conversion package as adapted for power uprate conditions. Specifically, in LCO 3.4.10, the operating limit for reactor steam dome pressure is increased from  $\leq 1020$  psig to  $\leq 1050$  psig. In the Bases, the initial pressure assumed in the analysis of the reactor overpressure event is changed to reference the 1055 psig value used in the corresponding analysis for power uprate.

Also, in the Bases, the values for the nominal operating pressure at which design basis accident and other transient analyses are performed for power uprate are modified to reflect 1035 psig and 1040 psig which correspond to the values used in the uprate analyses respectively.

II. REASON FOR THE CHANGES:

As discussed in the original TS-384 submittal dated October 1, 1997, nominal reactor operating pressure for uprated conditions increases 30 psi from 1005 psig to 1035 psig. Subsequent to the original submittal of TS-384, a change to the Improved Technical Specifications (ITS) conversion package (TS-362, Supplement 5, dated November 14, 1997) added a new TS Section, 3.4.10, Reactor Steam Dome Pressure, which provides requirements for maintaining reactor pressure below a prescribed value. To maintain consistency with the ITS, it is necessary to also adopt the same ITS Section 3.4.10 modified to reflect the appropriate operating conditions and analytic basis for power uprate conditions. Accordingly, LCO 3.4.10, the accompanying Surveillance Requirement (SR), and TS Bases have been added as proposed in this supplement for power uprate conditions.

### III. EVALUATION OF THE CHANGES:

Proposed LCO 3.4.10 and SR 3.4.10.1 provide restrictions on maximum allowed reactor steam dome pressure which are increased from a pre-uprate limit of 1020 psig to 1050 psig for power uprated conditions. The 30 psi increase in the maximum reactor steam dome pressure operating limit is consistent with the increase in nominal reactor operating pressure from 1005 psig at pre-uprated conditions to 1035 psig at uprated conditions, as evaluated in NEDC-32751P (See Reference, Enclosure 5). This increase in LCO steam dome pressure from 1020 psig to 1050 psig maintains the same operating margin (15 psi) between the nominal operating pressure and the LCO pressure value.

The reactor steam dome pressure is an initial condition for the vessel overpressure analysis for which the main steam isolation closure transient-flux scram is the limiting transient. For power uprate, a value of 1055 psig was utilized as the initial condition in the overpressure protection analysis as presented in Section 3.2 of NEDC-32751P and the ITS Bases have been revised to reflect this value. This initial condition input assumption is 20 psi above the revised power uprate nominal reactor operating dome pressure of 1035 psig and 5 psig above the LCO/SR limit on reactor pressure established in LCO 3.4.10. Hence, there is adequate margin established between the transient analysis input assumption on reactor pressure for the overpressurization analysis and actual reactor pressure.

The current analysis input value for the non-uprate overpressurization analysis is slightly higher (1071 psig) which is equivalent to the existing high pressure scram setpoint analytical limit. Use of this lower input value (1055 psig) is still conservative since with the implementation of ITS, an LCO and an accompanying SR are in effect which limit the allowed reactor pressure. Prior to implementation of ITS, there were no TS limits on allowed reactor operating pressure, hence, use of a more conservative value (1071 psig) for the analysis was appropriate. This approach is also consistent with standard TS, NUREG-1433. As noted above, the results of the main steam isolation closure transient-flux scram have been previously provided in Section 3.2 of NEDC-32751P which shows that the peak vessel pressure remains below the ASME 1375 psig limit.

The TS 3.4.10 Bases have also been revised to reference the analytic assumptions for power uprate used for the other transient and accident analyses as presented in NEDC-32751P. These analyses are not sensitive to reactor pressure and are performed assuming reactor pressures in the nominal expected operating ranges.



IV. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION.

TVA has concluded that operation of BFN Units 2 and 3 in accordance with the proposed change to the TS does not involve a significant hazards consideration. TVA's conclusion is based on its evaluation, in accordance with 10 CFR 50.91(a)(1), of the three standards set forth in 10 CFR 50.92(c).

- A. The proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The probability of Design Basis Accidents occurring is not affected by the establishment of an increased reactor pressure limit which corresponds to the increased power level since because the change in pressure is not an initiator of such an event. As stated in the technical justification, the results of the limiting overpressurization analysis shows that the peak vessel pressure remains below the ASME 1375 psig vessel pressure limit. Therefore, the proposed changes do not increase consequences of an accident previously evaluated.

- B. The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Equipment that could be affected by the reactor pressure change associated with power uprate has been evaluated as described in NEDC-32751P. No new operating modes, safety-related equipment line-ups, new or different accident scenario, or equipment failure modes were identified. Based on these considerations, the change does not create the possibility of a new or different kind of accident from any previously evaluated.

- C. The proposed amendment does not involve a significant reduction in a margin of safety.

As presented in NEDC-32751P, applicable accident and transient analyses have been performed for power uprate conditions which show that margins of safety are not significantly reduced. The limiting vessel pressurization transient, main steam isolation closure transient - flux scram, has been performed for power uprate conditions and shows that the peak vessel pressure remains below the ASME 1375 psig vessel pressure limit. Therefore, the proposed change does not involve a significant reduction in a margin of safety.



V. REFERENCES:

TVA letter to NRC dated October 1, 1997, "Browns Ferry Nuclear Plant (BFN) - Units 2 and 3 - Technical Specification (TS) Change TS-384 - Request for License Amendment for Power Uprate Operation."