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

November 6, 2000

TVA-BFN-TS-411

10 CFR 50.90

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 411 - INCORPORATION OF TS TASK FORCE (TSTF) ITEM 230 REVISION 1 - REVISE TS 3.6.2.3 - RHR SUPPRESSION POOL COOLING - TAC NOS. MA0319, MA0320, AND MA0321

In accordance with the provisions of 10 CFR 50.90, TVA is submitting a request for a TS change (TS-411) to licenses DPR-33, DPR-52, and DPR-68 to adopt TSTF-230, Revision 1. This TSTF adds a new Required Action B to NUREG-1433, Revision 1, BWR/4 Standard Technical Specifications (STS), Limiting Condition for Operation (LCO) 3.6.2.3, RHR Suppression Pool Cooling, to allow two Residual Heat Removal (RHR) suppression pool cooling subsystems to be inoperable for 8 hours. The equivalent change is proposed for BFN TS in Required Action C of LCO 3.6.2.3.

D030

The subject TSTF item was approved by the Boiling Water Reactor Owner's Group Technical Specifications Issues Coordination Committee, which reviews and endorses proposed generic changes to the BWR/4 STS, NUREG-1433, Revision 1, and NUREG-1434, BWR/6 STS, to clarify usage, correct errors, and make other improvements deemed beneficial to licensees who utilize Improved Technical Specifications (ITS). BFN ITS are based on NUREG-1433, Revision 1.

The TSTF in this submittal package has been previously reviewed and approved by NRC. Following approval by NRC, it is intended that the TSTFs be incorporated by individual licensees as changes to their respective ITS. Adoption of TSTFs has an added benefit of maintaining BFN ITS consistent with the latest approved changes to STS.

Enclosed is a description and justification for the proposed TS change, a comparison of the change with the NRC-approved TSTF, the significant hazards consideration determination, and marked-up copies of the appropriate pages from the current TS and Bases showing the proposed TS revisions.

TVA has determined that there are no significant hazards considerations associated with the proposed change and that the TS changes qualify 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 Nuclear Safety Review Board have reviewed these proposed changes, and determined that operation of BFN Units 1, 2, and 3 in accordance with the proposed changes 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 is requesting approval of this change as soon as practicable and that it be made effective within 30 days of issuance to allow an orderly implementation of any needed

plant procedures or training. If you have any questions concerning this proposed TS change, please contact me at (256)729-2636.

Sincerely,

T. E. Abney
Manager of Licensing
and Industry Affairs

Subscribed and sworn to before me
on this 6th day of Nov. 2000.

Barbara A. Blanton

Notary Public
My Commission Expires 09/22/2002

Enclosure
cc: See page 4

Enclosure

TS-411

Incorporation of TSTF-230, Revision 1

Add New Condition B to LCO 3.6.2.3, "RHR Suppression Pool Cooling"

TSTF-230, Revision 1
Description of Change

Description of Change

Technical Specification Task Force (TSTF)-230, Revision 1, adds a new REQUIRED ACTION B to NUREG-1433, Revision 1, Boiling Water Reactor (BWR)/4, Standard Technical Specifications (STS), Limiting Condition for Operation (LCO) 3.6.2.3, RHR Suppression Pool Cooling, to allow two Residual Heat Removal (RHR) suppression pool cooling subsystems to be inoperable for 8 hours. The equivalent change is proposed for BFN TS in REQUIRED ACTION C of LCO 3.6.2.3.

See the attached Unit 1 TS and TS Bases mark-ups at the end of the Enclosure for the detailed changes. The same changes are proposed for Units 2 and 3.

Reason for the Proposed Change

As part of a continuing effort to maintain and advance the use of Improved TS (ITS), generic changes to NUREG-1433, Revision 1, BWR/4, STS, are initiated by the reactor owners. These proposed changes to the BWR STS are submitted to the BWR Owner's Group Technical Specifications Issues Coordination Committee, which reviews and endorses generic changes to NUREG-1433, Revision 1, STS for BWR/4s and NUREG-1434, STS for BWR/6 reactors. Changes to STS are also proposed by the pressurized water reactor owners' groups who have analogous TS committees. Following approval by the owners' group TS committees, the proposed changes to STS are issued as TSTF items and submitted to NRC for comment, review, and approval. The TSTF incorporated in this submittal package has been previously reviewed and approved by NRC.

Following approval by NRC, it is intended that the TSTFs are incorporated by individual licensees into their ITS. BFN has reviewed TSTF-230, Revision 1 and determined it is appropriate to adopt the TSTF into BFN ITS. In proposing incorporation of this change, BFN is maintaining

consistency with the latest approved changes and improvements to STS.

Comparison to TSTF

NUREG-1433, Revision 1, BWR/4 STS, TS LCO 3.6.2.3 is written for plants with two RHR suppression pool cooling subsystems. The BFN suppression pool cooling system consists of two RHR loops each containing two motor driven pumps, two heat exchangers, and associated piping and valves which results in a four-subsystem configuration. Therefore, BFN is adapting this TSTF to provide 8 hours for four subsystems to be inoperable. This adaptation is equivalent to the objective of the TSTF change for two subsystem plants.

Justification for Change

The restoration time when all suppression pool cooling subsystems are inoperable is proposed to be changed to 8 hours. This time is consistent with the time provided in NUREG-1433, Revision 1, LCO 3.6.2.4 CONDITION B, Suppression Pool Spray, when all suppression pool spray subsystems are inoperable, and with the time provided in NUREG-1434, BWR/6 STS, LCO 3.6.1.7, Containment Spray, when all containment spray subsytems are inoperable. In addition, the Bases for NUREG-1433, Revision 1, LCO 3.7.1, REQUIRED ACTION D, when all RHR Service Water (RHRSW) subsytems are inoperable states that the 8-hour COMPLETION TIME to restore one RHRSW subsystem is based on the completion times provided for RHR suppression pool cooling and spray functions (RHRSW provides the cooling to the RHR heat exchangers, which are required for the RHR suppression pool cooling function).

The proposed 8 hour time is considered appropriate since a prompt plant shutdown (which is what is currently required in the STS and BFN TS 3.6.2.3) has the potential for resulting in a unit scram and discharge of steam to the suppression pool, when all four suppression pool cooling subsytems are inoperable and incapable of removing the generated heat. The 8 hours provides a limited time to restore one of the suppression pool cooling subsytems prior to requiring a unit shutdown (thus precluding the potential problem described above), yet is short enough

that it does not significantly increase the likelihood of an accident occurring during this additional time.

The NRC has also allowed many plants that had this allowance in their Custom Technical Specifications (CTS) to retain this allowance when they converted to the ITS, even though there was no plant specific justification, other than that it was allowed in their original CTS.

Environmental Impact Consideration

The proposed TS changes do not involve a significant hazards consideration, a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or a significant increase in individual or cumulative occupational radiation exposure. The proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed amendment is not required.

TSTF-230, Revision 1
No Significant Hazards Consideration Determination

TVA is submitting a request for an amendment to the Unit 1, 2, and 3 Technical Specifications (TS) to adopt NRC-approved generic change TS Task Force (TSTF) item TSTF-230, Revision 1. TSTF-230, Revision 1, revises the Limiting Condition for Operation (LCO) to LCO 3.6.2.3, Residual Heat Removal (RHR) Suppression Pool Cooling, to allow all RHR suppression pool cooling subsystems to be inoperable for 8 hours.

TVA has concluded that operation of Browns Ferry Nuclear Plant Units 1, 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 change does not result in any hardware or operating procedure changes. The RHR Suppression Pool Cooling subsystems are not assumed to be initiators of any analyzed event. This change allows an additional 8 hours to restore required RHR Suppression Pool Cooling subsystem(s) prior to requiring the initiation of a unit shutdown. The proposed 8 hour Completion Time provides some time to restore required subsystem(s) to Operable status, yet is short enough that operating an additional 8 hours is not a significant risk.

Therefore, the proposed amendment does not involve a significant increase in the probability or 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.**

The possibility of a new or different kind of accident from any previously evaluated is not created because the proposed change introduces no new mode of plant operation and it does not involve a physical modification to the plant.

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

The increased time allowed for restoring required inoperable RHR Suppression Pool Cooling subsystems is acceptable based on the small probability of an event requiring the inoperable suppression pool cooling subsystems to function and the desire to restore required subsystems prior to requiring the initiation of a plant shutdown. Delaying a plant shutdown will minimize the potential for a scram which then could result in a need for a subsystem when it is inoperable. As such, any reduction in a margin of safety will be insignificant and offset by the benefit gained from providing additional time to restore required subsystem(s), thus avoiding potential plant transients during shutdown. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

TSTF-230, Revision 1
Marked-up TS Pages

I. Affected Page List

Unit 1	Unit 2	Unit 3
3.6-31 3.6-32 B 3.6-71 B 3.6-72	Same as Unit 1	Same as Unit 1

II. Marked-up TS/TS Bases Pages

Attached

3.6 CONTAINMENT SYSTEMS

3.6.2.3 Residual Heat Removal (RHR) Suppression Pool Cooling

LCO 3.6.2.3 Four RHR suppression pool cooling subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One RHR suppression pool cooling subsystem inoperable.	A.1 Restore the RHR suppression pool cooling subsystem to OPERABLE status.	30 days
B. Two RHR suppression pool cooling subsystems inoperable.	B.1 Restore one RHR suppression pool cooling subsystem to OPERABLE status.	7 days
C. Three suppression pool cooling subsystems inoperable.	C.1 Restore required RHR suppression pool cooling subsystem to OPERABLE status.	8 hours

or more RHR

s

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time not met. ~~OR~~ ~~Four RHR Suppression Pool Cooling subsystems inoperable.~~	D.1 Be in MODE 3. AND D.2 Be in MODE 4.	12 hours 36 hours

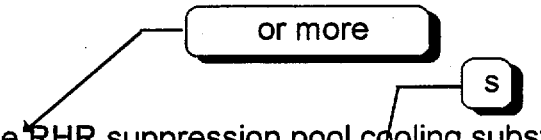
BASES

ACTIONS (continued)

B.1

With two RHR suppression pool cooling subsystems inoperable, at least one inoperable subsystem must be restored to OPERABLE status within 7 days. In this condition, the remaining two RHR suppression pool cooling subsystems are adequate to perform the primary containment cooling function. However, the overall reliability is reduced because a single failure could result in reduced or no primary containment cooling capability depending upon whether the two OPERABLE subsystems are in separate loops or the same loop. The 7 day Completion Time is acceptable in light of the redundant RHR suppression pool cooling capabilities afforded by the two OPERABLE subsystems and the low probability of a DBA occurring during this period.

C.1



With three RHR suppression pool cooling subsystems inoperable, the required subsystem must be restored to OPERABLE status within 8 hours. In this condition, there is substantial loss of the primary containment pressure and temperature mitigation function. The 8 hour Completion Time is based on this loss of function and is considered acceptable due to the low probability of a DBA and because alternative methods to remove heat from the primary containment are available.

BASES

ACTIONS (continued)

D.1 and D.2

If any Required Action and associated Completion Time cannot be met ~~or if four RHR suppression pool subsystems are inoperable~~, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.2.3.1

Verifying the correct alignment for manual, power operated, and automatic valves in the RHR suppression pool cooling mode flow path provides assurance that the proper flow path exists for system operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position since these valves were verified to be in the correct position prior to locking, sealing, or securing. A valve is also allowed to be in the nonaccident position provided it can be aligned to the accident position within the time assumed in the accident analysis. This is acceptable since the RHR suppression pool cooling mode is manually initiated. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

The Frequency of 31 days is justified because the valves are operated under procedural control, improper valve position would affect only a single subsystem, the probability of an event requiring initiation of the system is low, and the subsystem is a manually initiated system. This Frequency has been shown to be acceptable based on operating experience.