



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

August 28, 2000

TVA-BFN-TS-403

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 403 - INCORPORATION OF  
GENERIC TS CHANGES - TS SECTIONS 1.4, 3.0, 3.1.4, AND 5.0 -  
TAC NOS. MA9423, MA9424, AND MA9425**

In accordance with the provisions of 10 CFR 50.90, TVA is submitting a request for a TS change (TS-403) to licenses DPR-33, DPR-52, and DPR-68 to adopt several NRC-approved Technical Specification Task Force (TSTF) items. This submittal includes TSTF-71, Revision 2; TSTF-208, Revision 0; TSTF-222, Revision 1; TSTF-258, Revision 4; TSTF-284, Revision 3, and TSTF-364, Revision 0.

The subject TSTF items were 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 Standard Technical Specifications (STS), NUREG-1433, Revision 1, and NUREG-1434, BWR/6 STS, to clarify usage, correct errors, and

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make other improvements deemed beneficial to licensees who utilize Improved Technical Specifications (ITS). BFN ITS are based on NUREG-1433, Revision 1.

All TSTFs in this submittal package have 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 summary listing of the TSTFs being proposed for adoption into BFN ITS followed by separate enclosures for the individual TSTFs. Each TSTF enclosure includes a description and justification for each 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 revisions.

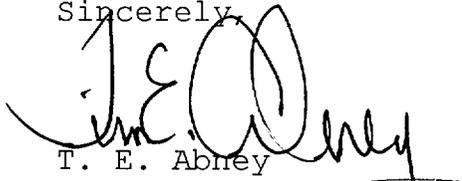
TVA has determined that there are no significant hazards considerations associated with the proposed change and that the TS changes qualify for a categorical exclusion from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9). The BFN Plant Operations Review Committee and the Nuclear 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 60 days of issuance to allow an orderly implementation of any needed

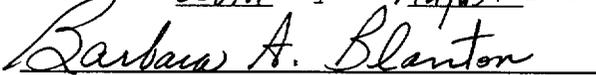
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plant procedures or training. If you have any questions concerning this proposed TS change, please contact me at (256) 729-2636.

Sincerely,

  
T. E. Abney  
Manager of Licensing  
and Industry Affairs

Subscribed and sworn to before me  
on this 28th day of August 2000.

  
\_\_\_\_\_  
Barbara A. Blanton

Notary Public  
My Commission Expires 09/22/2002

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Enclosures

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TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNITS 1, 2, and 3

PROPOSED TECHNICAL SPECIFICATIONS (TS) CHANGE TS-403  
INCORPORATION OF GENERIC TS CHANGES  
TS SECTIONS 1.4, 3.0, 3.1.4, AND 5.0

I. DESCRIPTION OF THE PROPOSED CHANGES

TVA is revising BFN Units 1, 2, and 3 Improved Technical Specifications (ITS) to adopt several generic changes to NUREG-1433, Revision 1, (BWR/4) Standard Technical Specifications (STS). BFN converted to ITS in July 1998 in license amendments 234, 253, and 212, for Units 1, 2, and 3 respectively. BFN ITS are based on NUREG-1433, Revision 1.

This submittal proposes the adoption of the following Technical Specification Task Force (TSTF) items.

1. **TSTF-284, Revision 3**

**Subject: Add "Met vs. Perform" to Specification 1.4, Frequency**

TSTF-284, Revision 3, modifies TS Section 1.4, Frequency, to clarify the usage of the terms "met" and "performed" to facilitate the application of Surveillance Requirement (SR) Notes. New Examples 1.4-5 and 1.4-6 are added to illustrate the application of the terms.

2. **TSTF-208, Revision 0**

**Subject: Extension of Time to Reach Mode 2 in LCO 3.0.3**

TSTF-208, Revision 0, provides an allowance to extend the time to reach MODE 2 specified in Limiting Condition for Operation (LCO) 3.0.3 from 7 to 10 hours. This value is based on plant experience regarding the time required to perform a controlled reactor shutdown.

3. **TSTF-71, Revision 2**

**Subject: Add Example of SFDP to the 3.0.6 Bases**

TSTF-71, Revision 2, adds an example of the application of the Safety Function Determination Program (SFDP) to the Bases for LCO 3.0.6.

**4. TSTF-222, Revision 1**

**Subject: Control Rod Scram Time Testing**

TSTF-222, Revision 1 clarifies ITS Section 3.1.4 SRs, Control Rod Scram Times, to better delineate the requirements for testing control rods following refueling outages and for control rods requiring testing due to work activities.

**5. TSTF-258, Revision 4**

**Subject: Changes to Section 5.0, Administrative Controls**

TSTF-258, Revision 4, revises TS Section 5.0 to delete details of staffing requirements for Reactor Operators (ROs), eliminates specific details for working hour limits, clarifies requirements for the Shift Technical Advisor position, adds regulatory definitions for Senior Reactor Operators and ROs, revises the Radioactive Effluent Controls Program to be consistent with the intent of 10 CFR Part 20, deletes periodic reporting requirements for mainsteam relief valve openings, and revises radiological control requirements for radiation areas to be consistent with those specified in 10 CFR 20.1601(c).

**6. TSTF-364, Revision 0**

**Subject: Revision to TS Bases Control Program to Incorporate Changes to 10 CFR 50.59**

TSTF-364, Revision 0 revises Section 5.5.10, TS Bases Control Program, to reference 10 CFR 50.59 rather than "unreviewed safety question".

A separate enclosure is attached for each individual TSTF containing a detailed description and justification for the TS change, a comparison with the NRC-approved TSTF, the significant hazards consideration determination, and marked-up copies of the appropriate pages from the current Unit 1 TS and Unit 1 TS Bases showing the proposed TS revisions. The proposed changes are identical for all 3 BFN TS and TS Bases.

**II. REASON FOR THE PROPOSED CHANGES**

As part of a continuing effort to maintain and improve use of the 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 (BWROG) Technical Specifications Issues Coordination Committee (TSICC), 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 TSTFs and submitted to NRC for comment, review, and approval. All TSTFs in this submittal package have been previously reviewed and approved by NRC.

Following approval by NRC, it is intended that the generic changes are incorporated by individual licensees into their TS. BFN has reviewed the TSTFs provided in this submittal and determined it is appropriate to adopt the TSTFs into BFN ITS. In proposing incorporation of these changes, BFN is maintaining consistency with the latest approved changes and improvements to STS.

### **III. CONSISTENCY WITH TSTF**

Whenever possible, the TSTFs are being incorporated into BFN ITS using the same format and provisions in the NRC-approved TSTFs. In some cases, due to plant specific differences or due to variations between BFN TS and STS, NUREG-1433, Revision 1, made during the ITS conversion process, minor modifications to the TSTFs are necessary to properly incorporate the TSTF into BFN ITS. In the attached enclosures for the individual TSTFs, a comparison between the TSTF as approved by NRC and BFN's proposed change is provided and differences, if any, are discussed and justified. In all cases, the intent of the TSTF is maintained.

### **IV. JUSTIFICATION FOR CHANGES**

In the attached enclosures, a justification for adopting each TSTF is provided, which includes plant specific information as appropriate.

### **VI. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION**

TVA has concluded that operation of BFN Units 1, 2, and 3 in accordance with the proposed changes 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). Refer to the enclosures for the details of this determination for individual TSTFs.

## VI. 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. Therefore, 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. This determination applies to all of the TSTFs in the Enclosures.

**TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNITS 1, 2, and 3**

**PROPOSED TECHNICAL SPECIFICATIONS (TS) CHANGE TS-403  
INCORPORATION OF GENERIC TS CHANGES  
TS SECTIONS 1.4, 3.0, 3.1.4, AND 5.0**

**TSTF ENCLOSURE INDEX**

<b>TSTF</b>	<b>Revision</b>	<b>Subject</b>
1. TSTF-284	Revision 3	Add "Met vs. Perform" to Specification 1.4, Frequency
2. TSTF-208	Revision 0	Extension of Time to Reach Mode 2 in LCO 3.0.3
3. TSTF-71	Revision 2	Add Example of SFDP to the 3.0.6 Bases
4. TSTF-222	Revision 1	Control Rod Time Scram Testing
5. TSTF-258	Revision 4	Changes to Section 5.0, Administrative Controls
6. TSTF-364	Revision 0	Revision to TS Bases Control Program to Incorporate Changes to 10 CFR 50.59

**TSTF-284, Revision 3**

**Add “Met vs. Perform” to Specification 1.4, Frequency**

**Enclosure 1**  
**TSTF-284, Revision 3**  
**Description of Change**

**Description of Change**

TSTF-284, Revision 3, modifies Improved Technical Specifications (ITS) Section 1.4, Frequency, to clarify the usage of the terms "met" and "performed" to facilitate the application of Surveillance Requirement (SR) Notes. Two new SR Examples, 1.4-5 and 1.4-6, are added to illustrate the application of the terms.

See the attached marked-up Unit 1 TS pages for the detailed changes. The proposed TS changes are identical for Units 2 and 3.

**Comparison to TSTF**

TSTF-284, Revision 3 is adopted with no variance.

**Justification for Change**

Incorporation of TSTF-284, Revision 3, clarifies the use of the terms "met" and "performed" in TS Section 1.4, Frequency, to facilitate and application of SR Notes. Additionally, two new Examples 1.4-5 and 1.4-6 are being added to illustrate the application of the terms. This change is administrative and simply serves to improve TS usefulness by clarifying terminology usage and providing additional examples of the application of SR Notes. No changes in the application of any TS are involved.

**Enclosure 2**  
**TSTF-284, Revision 3**  
**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-284, Revision 3. This TSTF clarifies the use of Surveillance Requirements notes.

TVA has concluded that operation of Browns Ferry Nuclear Plant (BFN) 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 proposed change is an administrative clarification of existing requirements. The change clarifies the TS terminology to facilitate the use and application of Surveillance Requirement Notes to improve TS use. Also, two additional examples of the application of Surveillance Requirement Notes are incorporated. 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 proposed change does not involve a physical alteration of the plant, add any new equipment, or require any existing equipment to be operated in a manner different from the present design. The proposed change will not impose any new or eliminate any existing requirements. Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The proposed change will not reduce a margin of safety because it has no effect on any safety analyses assumptions. This change is administrative in nature. For these reasons, the proposed amendment does not involve a significant reduction in the margin of safety.

**Enclosure 3**  
**TSTF-284, Revision 3**  
**Marked-up TS Pages**

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I. Affected Page List

Unit 1	Unit 2	Unit 3
1.4-1	1.4-1	1.4-1
1.4-2	1.4-2	1.4-2
1.4-6	1.4-6	1.4-6

II. Unit 1 Marked-up Pages Attached

## 1.0 USE AND APPLICATION

### 1.4 Frequency

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PURPOSE	The purpose of this section is to define the proper use and application of Frequency requirements.
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DESCRIPTION	Each Surveillance Requirement (SR) has a specified Frequency in which the Surveillance must be met in order to meet the associated Limiting Condition for Operation (LCO). An understanding of the correct application of the specified Frequency is necessary for compliance with the SR.
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The "specified Frequency" is referred to throughout this section and each of the Specifications of Section 3.0, Surveillance Requirement (SR) Applicability. The "specified Frequency" consists of the requirements of the Frequency column of each SR, as well as certain Notes in the Surveillance column that modify performance requirements.

Sometimes special situations dictate when the requirements of a Surveillance are to be met. They are "otherwise stated" conditions allowed by SR 3.0.1. They may be stated as clarifying Notes in the Surveillance, as part of the Surveillance, or both. Example 1.4-4 discusses these special situations.

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Rev. 3

Situations where a Surveillance could be required (i.e., its Frequency could expire), but where it is not possible or not desired that it be performed until sometime after the associated LCO is within its Applicability, represent potential SR 3.0.4 conflicts. To avoid these conflicts, the SR (i.e., the Surveillance or the Frequency) is stated such that it is only "required" when it can be and should be performed. With an SR satisfied, SR 3.0.4 imposes no restriction.

(continued)

1.4 Frequency

DESCRIPTION  
(continued)

The use of "met" or "performed" in these instances conveys specific meanings. A Surveillance is "met" only when the acceptance criteria are satisfied. Known failure of the requirements of a Surveillance, even without a Surveillance specifically being "performed," constitutes a Surveillance not "met." "Performance" refers only to the requirement to specifically determine the ability to meet the acceptance criteria. SR 3.0.4 restrictions would not apply if both the following conditions are satisfied:

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INSERT 1A

- a. The Surveillance is not required to be performed; and
- b. The Surveillance is not required to be met or, even if required to be met, is not known to be failed.

EXAMPLES

The following examples illustrate the various ways that Frequencies are specified. In these examples, the Applicability of the LCO (LCO not shown) is MODES 1, 2, and 3.

EXAMPLE 1.4-1

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
Perform CHANNEL CHECK.	12 hours

Example 1.4-1 contains the type of SR most often encountered in the Technical Specifications (TS). The Frequency specifies an interval (12 hours) during which the associated Surveillance must be performed at least one time. Performance of the Surveillance initiates the subsequent interval. Although the Frequency is stated as 12 hours, an extension of the time interval to 1.25 times the interval specified in the Frequency is

(continued)

INSERT 1A (BWR/4 and BWR/6)

Some Surveillances contain notes that modify the Frequency of performance or the conditions during which the acceptance criteria must be satisfied. For these Surveillances, the MODE-entry restrictions of SR 3.0.4 may not apply. Such a Surveillance is not required to be performed prior to entering a MODE or other specified condition in the Applicability of the associated LCO if any of the following three conditions are satisfied:

- a. The Surveillance is not required to be met in the MODE or other specified condition to be entered; or
- b. The Surveillance is required to be met in the MODE or other specified condition to be entered, but has been performed within the specified Frequency (i.e., it is current) and is known not to be failed; or
- c. The Surveillance is required to be met, but not performed, in the MODE or other specified condition to be entered, and is known not to be failed.

Examples 1.4-3, 1.4-4, 1.4-5, and 1.4-6 discuss these special situations.

1.4 Frequency

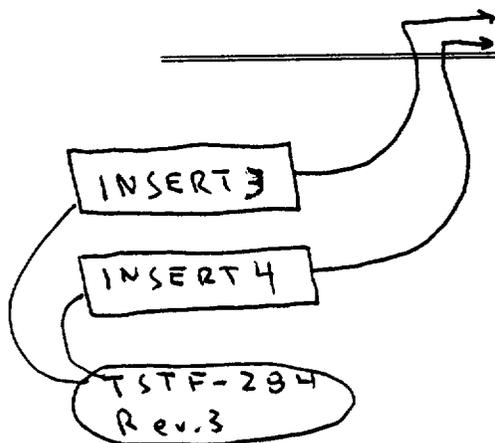
EXAMPLES  
(continued)

EXAMPLE 1.4-4

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>-----NOTE----- Only required to be met in MODE 1. -----</p>	
Verify leakage rates are within limits.	24 hours

Example 1.4-4 specifies that the requirements of this Surveillance do not have to be met until the unit is in MODE 1. The interval measurement for the Frequency of this Surveillance continues at all times, as described in Example 1.4-1. However, the Note constitutes an "otherwise stated" exception to the Applicability of this Surveillance. Therefore, if the Surveillance were not performed within the 24 hour (plus the extension allowed by SR 3.0.2) interval, but the unit was not in MODE 1, there would be no failure of the SR nor failure to meet the LCO. Therefore, no violation of SR 3.0.4 occurs when changing MODES, even with the 24 hour Frequency exceeded, provided the MODE change was not made into MODE 1. Prior to entering MODE 1 (assuming again that the 24 hour Frequency were not met), SR 3.0.4 would require satisfying the SR.



INSERT 3

EXAMPLES  
(continued)

EXAMPLE 1.4-5

SURVEILLANCE REQUIREMENTS	
SURVEILLANCE	FREQUENCY
-----NOTE----- Only required to be performed in MODE 1. -----	
Perform complete cycle of the valve.	7 days

The interval continues, whether or not the unit operation is in MODE 1, 2, or 3 (the assumed Applicability of the associated LCO) between performances.

As the Note modifies the required performance of the Surveillance, the Note is construed to be part of the "specified Frequency." Should the 7 day interval be exceeded while operation is not in MODE 1, this Note allows entry into and operation in MODES 2 and 3 to perform the Surveillance. The Surveillance is still considered to be performed within the "specified Frequency" if completed prior to entering MODE 1. Therefore, if the Surveillance were not performed within the 7 day (plus the extension allowed by SR 3.0.2) interval, but operation was not in MODE 1, it would not constitute a failure of the SR or failure to meet the LCO. Also, no violation of SR 3.0.4 occurs when changing MODES, even with the 7 day Frequency not met, provided operation does not result in entry into MODE 1.

Once the unit reaches MODE 1, the requirement for the Surveillance to be performed within its specified Frequency applies and would require that the Surveillance had been performed. If the Surveillance were not performed prior to entering MODE 1, there would then be a failure to perform a Surveillance within the specified Frequency, and the provisions of SR 3.0.3 would apply.

INSERT 4EXAMPLE 1.4- 6.

## SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p style="text-align: center;">-----NOTE-----            Not required to be met in MODE 3.            -----</p> <p>Verify parameter is within limits.</p>	<p>24 hours</p>

Example 1.4- 6 specifies that the requirements of this Surveillance do not have to be met while the unit is in MODE 3 (the assumed Applicability of the associated LCO is MODES 1, 2, and 3). The interval measurement for the Frequency of this Surveillance continues at all times, as described in Example 1.4-1. However, the Note constitutes an "otherwise stated" exception to the Applicability of this Surveillance. Therefore, if the Surveillance were not performed within the 24 hour interval (plus the extension allowed by SR 3.0.2), and the unit was in MODE 3, there would be no failure of the SR nor failure to meet the LCO. Therefore, no violation of SR 3.0.4 occurs when changing MODES to enter MODE 3, even with the 24 hour Frequency exceeded, provided the MODE change does not result in entry into MODE 2. Prior to entering MODE 2 (assuming again that the 24 hour Frequency were not met), SR 3.0.4 would require satisfying the SR.

**TSTF-208, Revision 0**

**Extension of Time to Reach Mode 2 in LCO 3.0.3**

**Enclosure 1**  
**TSTF-208, Revision 0**  
**Description of Change**

**Description of Change**

TSTF-208, Revision 0, is adopted by extending the allowed time to reach MODE 2 in Limiting Condition for Operation (LCO) 3.0.3 from 7 hours to 10 hours. The change is based on plant experience regarding the time needed to perform a controlled shutdown in an orderly manner.

See the attached marked-up Unit 1 Technical Specifications (TS) pages for the detailed changes. The proposed TS changes are identical for Units 2 and 3.

**Comparison to TSTF**

Standard TS provides a 7-hour value for the time to reach MODE 2 under LCO 3.0.3. TSTF-208, Revision 0, allows a plant specific experienced based value to be used. 10 hours is being proposed as a more suitable value.

**Justification for Change**

NUREG-1433, Revision 1, BWR/4 STS requires Action to be initiated within 1 hour to place the unit in MODE 2 within seven hours (when in LCO 3.0.3). Hence, the NUREG effectively allows six hours from the start of the shutdown to reach MODE 2. The intent of this NUREG Action time is to require a controlled shutdown in an expeditious yet orderly manner. This ensures a reactor shutdown is performed in a prompt manner while minimizing the risk of inadvertent transients that could result from undue time pressure.

Browns Ferry is a large BWR/4 with 185 control rods. Plant experience indicates that a six hour limitation to reach MODE 2 does not provide enough time to perform a controlled shutdown under LCO 3.0.3 in an orderly manner. A review of historical data for controlled shutdowns indicates that approximately 9 hours are needed to perform this activity following the decision to shutdown (10 hours total). The time to reach MODE 3 is unchanged by this TS proposal and remains at 13 hours.

**Enclosure 2**  
**TSTF-208, Revision 0**  
**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-208, Revision 0. This TSTF extends the time allowed to reach MODE 2 in Limiting Condition for Operation (LCO) 3.0.3 from 7 hours to 10 hours.

TVA has concluded that operation of Browns Ferry Nuclear Plant (BFN) 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 proposed change relaxes the Action time for LCO 3.0.3. The subject Action time is not an initiating condition for any accident previously evaluated and the accident analyses do not assume that equipment is out of service (requiring entry into LCO 3.0.3) prior to postulated events. Consequently, the extended action time does not significantly increase the probability of an accident previously evaluated. The consequences of an analyzed accident during the extended action time are the same as the consequences during the existing action time. As a result, the consequences of an accident previously evaluated are not significantly increased.

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 proposed change does not involve a physical alteration of the plant, add any new equipment, or require any existing equipment to be operated in a manner different from the present design. Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The proposed change will not reduce a margin of safety because it has no effect on any safety analyses assumptions. The TS defines specific time limits during which operation with degraded condition is permitted. In this case, actual plant experience indicates that the Action time in existing TS is too short to accomplish the specified action to be in MODE 2 in an orderly manner. Extension of the time would allow the reactor to be shutdown in a controlled manner while minimizing risks associated with the initiation of inadvertent transients. This maximizes reactor safety.

For these reasons, the proposed amendment does not involve a significant reduction in the margin of safety.

**Enclosure 3**  
**TSTF-208, Revision 0**  
**Marked-up TS Pages**

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I. Affected Page List

Unit 1	Unit 2	Unit 3
3.0.1	3.0.1	3.0.1

II. Unit 1 Marked-up Pages Attached

### 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

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LCO 3.0.1 LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2 and LCO 3.0.7.

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LCO 3.0.2 Upon discovery of a failure to meet an LCO, the Required Actions of the associated Conditions shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6.

If the LCO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required, unless otherwise stated.

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LCO 3.0.3 When an LCO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS, the unit shall be placed in a MODE or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the unit, as applicable, in:

- a. MODE 2 within ~~7~~ hours;
- b. MODE 3 within 13 hours; and
- c. MODE 4 within 37 hours.



Exceptions to this Specification are stated in the individual Specifications.

Where corrective measures are completed that permit operation in accordance with the LCO or ACTIONS, completion of the actions required by LCO 3.0.3 is not required.

LCO 3.0.3 is only applicable in MODES 1, 2, and 3.

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(continued)

**TSTF-71, Revision 2**

**Add Example of SFDP to the 3.0.6 Bases**

**Enclosure 1**  
**TSTF-71, Revision 2**  
**Description of Change**

**Description of Change**

TSTF-71, Revision 2, adds an example of the application of the Safety Function Determination Program (SFDP) to the Bases for Limiting Conditions for Operation (LCO) 3.0.6.

See the attached marked-up Unit 1 TS pages for the detailed changes. The proposed TS changes are identical for Units 2 and 3.

**Comparison to TSTF**

TSTF-71, Revision 2, is adopted with no variances.

**Justification for Change**

TSTF-71, Revision 2, adds an example of the application of the SFDP to the Bases for LCO 3.0.6 for illustration purposes. This change does not affect the application of LCO 3.0.6, therefore, the change is considered an administrative change which serves to improve TS usefulness by providing an example.

**Enclosure 2**  
**TSTF-71, Revision 2**  
**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-71, Revision 2. This TSTF adds an example of the application of the Safety Function Determination Program (SFDP) to the Bases for Limiting Condition for Operation 3.0.6.

TVA has concluded that operation of Browns Ferry Nuclear Plant (BFN) 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 adds an example of SFDP use to facilitate the application of the TS, which serves to improve TS usefulness. The proposed change is an administrative clarification of existing requirements, and does not change TS requirements. 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 proposed change does not involve a physical alteration of the plant, add any new equipment, or require any existing equipment to be operated in a manner different from the present design. The proposed change will not impose any new or eliminate any existing requirements. Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The proposed change will not reduce a margin of safety because it has no effect on any safety analyses assumptions. This change is administrative in nature. For these reasons, the proposed amendment does not involve a significant reduction in the margin of safety.

**Enclosure 3**  
**TSTF-71, Revision 2**  
**Marked-up TS Pages**

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I. Affected Page List

Unit 1	Unit 2	Unit 3
B 3.0.10	B 3.0.10	B 3.0.10

II. Unit 1 Marked-up TS Pages Attached

BASES

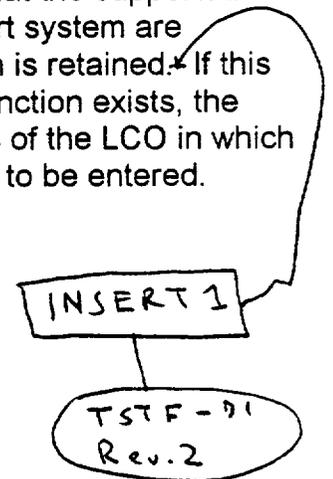
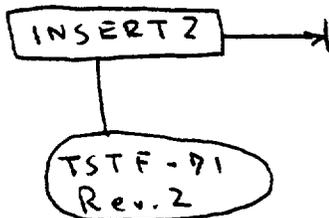
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LCO 3.0.6  
(continued)

However, there are instances where a support system's Required Action may either direct a supported system to be declared inoperable or direct entry into Conditions and Required Actions for the supported system. This may occur immediately or after some specified delay to perform some other Required Action. Regardless of whether it is immediate or after some delay, when a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

Specification 5.5.11, "Safety Function Determination Program (SFDP)," ensures loss of safety function is detected and appropriate actions are taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system Conditions and Required Actions. The SFDP implements the requirements of LCO 3.0.6.

The SFDP requires cross division checks to identify a loss of safety function for those support systems that support safety systems are required. The cross division check verifies that the supported systems of the redundant OPERABLE support system are OPERABLE, thereby ensuring safety function is retained. If this evaluation determines that a loss of safety function exists, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.



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(continued)

INSERT 1

A loss of safety function may exist when a support system is inoperable, and:

- a. A required system redundant to system(s) supported by the inoperable support system is also inoperable; or (EXAMPLE B3.0.6-1)
- b. A required system redundant to system(s) in turn supported by the inoperable supported system is also inoperable; or (EXAMPLE B3.0.6-2)
- c. A required system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable. (EXAMPLE B3.0.6-3)

EXAMPLE B3.0.6-1

If System 2 of Train A is inoperable, and System 5 of Train B is inoperable, a loss of safety function exists in supported System 5.

EXAMPLE B3.0.6-2

If System 2 of Train A is inoperable, and System 11 of Train B is inoperable, a loss of safety function exists in System 11 which is in turn supported by System 5.

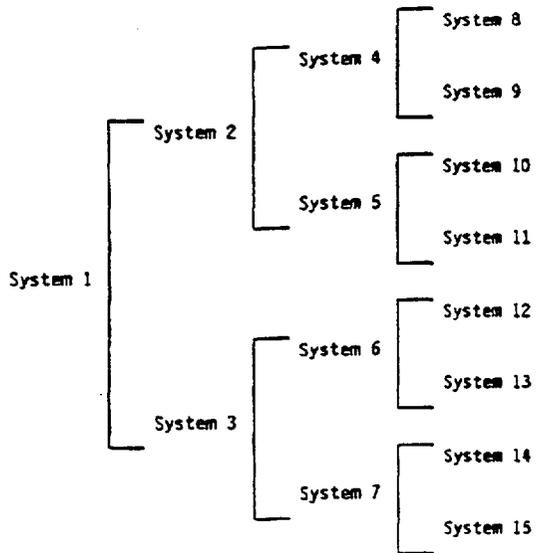
EXAMPLE B3.0.6-3

If System 2 of Train A is inoperable, and System 1 of Train B is inoperable, a loss of safety function exists in Systems 2, 4, 5, 8, 9, 10 and 11.

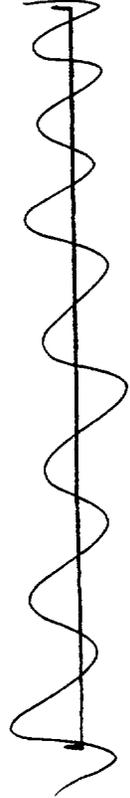
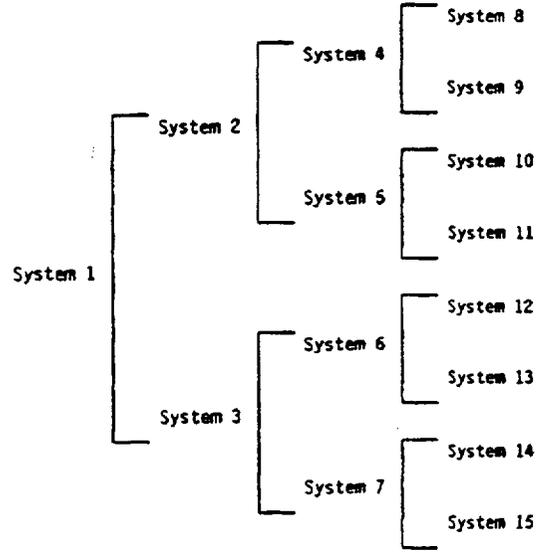
INSERT 2

EXAMPLES

TRAIN A



TRAIN B



**TSTF-222, Revision 1**

**Control Rod Scram Time Testing**

**Enclosure 1**  
**TSTF-222, Revision 1**  
**Description of Change**

**Description of Change**

TSTF-222, Revision 1, clarifies Improved Technical Specification (ITS) Section 3.1.4, Control Rod Scram Times, Surveillance Requirements (SRs) to better delineate the requirements for testing control rods following refueling outages and for control rods requiring testing due to work activities.

See the attached marked-up Unit 1 TS/Bases pages for the detailed changes. The proposed changes are identical for Units 2 and 3.

**Comparison to TSTF**

TSTF-222, Revision 1, is adopted with no variances.

**Justification for Change**

The current words of SR 3.1.4.1 require each control rod to be tested if any fuel movement in the reactor pressure vessel occurs. This could be interpreted to mean that even if only one bundle is moved, (for example, to remove a leaking bundle mid-cycle), then all the control rods would be required to be tested. In addition, there are other SRs (SR 3.1.4.3 and 3.1.4.4) that require only the affected control rods to be tested. Therefore, it is proposed to move the first Frequency of SR 3.1.4.1 to SR 3.1.4.4, and modify it to read, "affected core cell" in lieu of "reactor pressure vessel." The Bases for SR 3.1.4.4 will state that it is expected that during a routine refueling outage, all control rods will be affected. This will serve to ensure required TS testing is clearly delineated.

The TS requirement for testing control rods remains unchanged. Therefore, this change is considered administrative and simply serves to ensure the existing TS requirements are not misinterpreted.

**Enclosure 2**  
**TSTF-222, 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-222, Revision 1. This TSTF better delineates the requirements for testing control rods following refueling outages and for control rods requiring testing due to work activities.

TVA has concluded that operation of Browns Ferry Nuclear Plant (BFN) 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 proposed change is an administrative clarification of existing TS requirements which clarifies scram time testing requirements for control rods. The rewording and reformatting involves no technical changes to the existing TS. As such, there is no effect on initiators of analyzed events or assumed mitigation of accidents or transients. 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 proposed change does not involve a physical alteration of the plant, add any new equipment, or require any existing equipment to be operated in a manner different from the present design. Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The proposed change will not reduce a margin of safety because it has no effect on any safety analyses assumptions. This change is administrative in nature. For these reasons, the proposed amendment does not involve a significant reduction in the margin of safety.

**Enclosure 3**  
**TSTF-222, Revision 1**  
**Marked-up TS Pages**

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I. Affected Page List

Unit 1	Unit 2	Unit 3
3.1.13	3.1.13	3.1.13
3.1.14	3.1.14	3.1.14
B 3.1-30	B 3.1-30	B 3.1-30
B 3.1-31	B 3.1-31	B 3.1-31
B 3.1-33	B 3.1-33	B 3.1-33

II. Unit 1 Marked-up TS/Bases Pages Attached

SURVEILLANCE REQUIREMENTS

-----NOTE-----

During single control rod scram time Surveillances, the control rod drive (CRD) pumps shall be isolated from the associated scram accumulator.

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SURVEILLANCE		FREQUENCY
SR 3.1.4.1	Verify each control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure $\geq$ 800 psig.	<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block; margin-bottom: 5px;"> <del>Prior to exceeding 40% RTP after fuel movement within the reactor pressure vessel</del> </div> <p><u>AND</u></p> <p>Prior to exceeding 40% RTP after each reactor shutdown <math>\geq</math> 120 days</p>
SR 3.1.4.2	Verify, for a representative sample, each tested control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure $\geq$ 800 psig.	120 days cumulative operation in MODE 1

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(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.1.4.3	Verify for each affected control rod scram time is within the limits of Table 3.1.4-1 with any reactor steam dome pressure.	Prior to declaring control rod OPERABLE after work on control rod or CRD System that could affect scram time
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure $\geq$ 800 psig.	Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time

Prior to exceeding 40% RTP after fuel movement within the affected core cell

AND

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Rev. 1

BASES (continued)

**SURVEILLANCE  
REQUIREMENTS**

The four SRs of this LCO are modified by a Note stating that during a single control rod scram time surveillance, the CRD pumps shall be isolated from the associated scram accumulator. With the CRD pump isolated, (i.e., charging valve closed) the influence of the CRD pump head does not affect the single control rod scram times. During a full core scram, the CRD pump head would be seen by all control rods and would have a negligible effect on the scram insertion times.

SR 3.1.4.1

The scram reactivity used in DBA and transient analyses is based on an assumed control rod scram time. Measurement of the scram times with reactor steam dome pressure  $\geq 800$  psig demonstrates acceptable scram times for the transients analyzed in References 3 and 4.

Maximum scram insertion times occur at a reactor steam dome pressure of approximately 800 psig because of the competing effects of reactor steam dome pressure and stored accumulator energy. Therefore, demonstration of adequate scram times at reactor steam dome pressure  $\geq 800$  psig ensures that the measured scram times will be within the specified limits at higher pressures. Limits are specified as a function of reactor pressure to account for the sensitivity of the scram insertion times with pressure and to allow a range of pressures over which scram time testing can be performed. To ensure that scram time testing is performed within a reasonable time

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Rev. 1

following fuel movement within the reactor pressure vessel after a shutdown  $\geq 120$  days or longer, control rods are required to be tested before exceeding 40% RTP following the shutdown. In the event fuel movement is limited to selected core cells, it is the intent of this SR that only those CRDs associated with the core cells affected by the fuel movements are required to be scram time tested. However, if the reactor remains shutdown  $\geq 120$  days, all control rods are required to be scram time tested. This Frequency is acceptable considering the additional

(continued)

BASES

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SURVEILLANCE  
REQUIREMENTS  
(continued)

surveillances performed for control rod OPERABILITY, the frequent verification of adequate accumulator pressure, and the required testing of control rods affected by work on control rods or the CRD System.

SR 3.1.4.2

fuel movement  
within the associated  
core cell and by

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Rev. 1

Additional testing of a sample of control rods is required to verify the continued performance of the scram function during the cycle. A representative sample contains at least 10% of the control rods. This sample remains representative if no more than 20% of the control rods in the sample tested are determined to be "slow." With more than 20% of the sample declared to be "slow" per the criteria in Table 3.1.4-1, additional control rods are tested until this 20% criterion (i.e., 20% of the entire sample) is satisfied, or until the total number of "slow" control rods (throughout the core from all Surveillances) exceeds the LCO limit. For planned testing, the control rods selected for the sample should be different for each test. Data from inadvertent scrams should be used whenever possible to avoid unnecessary testing at power, even if the control rods with data may have been previously tested in a sample. The 120 day Frequency is based on operating experience that has shown control rod scram times do not significantly change over an operating cycle. This Frequency is also reasonable based on the additional Surveillances done on the CRDs at more frequent intervals in accordance with LCO 3.1.3 and LCO 3.1.5, "Control Rod Scram Accumulators."

(continued)

TSTF-222  
Rev. 1

or when fuel movement within  
the reactor pressure occurs,

BASES

SURVEILLANCE  
REQUIREMENTS  
(continued)

SR 3.1.4.4

When work that could affect the scram insertion time is performed on a control rod or CRD System, testing must be done to demonstrate each affected control rod is still within the limits of Table 3.1.4-1 with the reactor steam dome pressure  $\geq 800$  psig. Where work has been performed at high reactor pressure, the requirements of SR 3.1.4.3 and SR 3.1.4.4 can be satisfied with one test. For a control rod affected by work performed while shut down, however, a zero pressure and high pressure test may be required. This testing ensures that, prior to withdrawing the control rod for continued operation, the control rod scram performance is acceptable for operating reactor pressure conditions. Alternatively, a control rod scram test during hydrostatic pressure testing could also satisfy both criteria.

The Frequency of once prior to exceeding 40% RTP is acceptable because of the capability to test the control rod over a range of operating conditions and the more frequent surveillances on other aspects of control rod OPERABILITY.

When fuel movement within the reactor pressure occurs, only those control rods associated with the core cells affected by the fuel movement are required to be scram time tested. During a routine refueling outage, it is expected that all control rods will be affected.

TSTF-222  
Rev. 1

(continued)

**TSTF-258, Revision 4**

**Changes to Section 5.0, Administrative Controls**

**Enclosure 1**  
**TSTF-258, Revision 4**  
**Description of Change**

**Description of Change**

TSTF-258, Revision 4, revises TS Section 5.0, Administrative Controls, to delete specific TS staffing requirement provisions for Reactor Operators (ROs), eliminates TS details for working hour limits, clarifies requirements for the Shift Technical Advisor (STA) position, adds regulatory definitions for Senior Reactor Operators (SROs) and ROs, revises the Radioactive Effluent Controls Program to be consistent with the intent of 10 CFR Part 20, deletes periodic reporting requirements for mainsteam relief valve openings, and revises radiological area control requirements for radiation areas to be consistent with those specified in 10 CFR 20.1601(c).

See the attached marked-up Unit 1 TS pages for the detailed changes. The proposed TS changes are identical for Units 2 and 3.

**Comparison to TSTF**

TSTF-258, Revision 4, is adopted with minor variances. In the change to revised TS Section 5.2.2.g, "shift operating crew" is substituted for "unit operations shift crew" to better reflect BFN terminology. In the change to revised TS Section 5.7.2.a.1, BFN specific titles are substituted for the shift supervisor and radiation protection manager positions in the TSTF. In the change to TS 5.7.1.d.4 and TS 5.7.2.d.3, the term "electronic dosimeter" is deleted. BFN does not use the type of electronic dosimeter (which only measures total dose) referenced in these two TS sections.

**Justification for Change**

**1. Staffing Requirement Provisions for Reactor Operators**

TS Section 5.2.2.b regarding staffing requirements for ROs and SRO presence is deleted. The existing regulatory requirements of 10 CFR 50.54(m)(2)(iii) and 50.54(k) already adequately provide for shift manning requirements for operators.

50.54(m)(2)(iii), requires "when a nuclear power unit is in an operational mode other than cold shutdown or refueling, as defined by the unit's technical specifications, each licensee shall have a person holding an senior operator license for the nuclear power unit in the control room at all times. In addition to

this senior operator, for each fueled nuclear power unit, a licensed operator or senior operator shall be present at the controls at all times." Further, 50.54(k) requires, "An operator or senior operator licensed pursuant to part 55 of this chapter shall be present at the controls at all times during the operation of the facility."

Hence, the same requirements currently in TS 5.2.2.b requirements are repeated in the referenced CFR sections, which will continue to be met through compliance with these regulations. These CFR provisions need not be reiterated in the TS. Therefore, deletion of TS Section 5.2.2.b is considered an administrative change which removes duplicative CFR requirements from TS.

## **2. Working Hour Limits Details Removal**

Specific working hour limits in existing TS Section 5.2.2.e are modified to reference administrative procedures as the means of control working hours. Titles within TS 5.2.2.e are also revised to match TSTF-258, Revision 4. TS 5.2.2.e is renumbered as TS 5.2.2.d in the mark-up copy.

The inclusion of working hour limits are not required to be in the TS by 10 CFR 50.36(c)(5). Therefore, it is acceptable that requirements for controlling working hours of reactor plant staff be described in site procedures. These administrative procedures require a deliberate decision-making process to minimize the potential for impaired personnel performance. The proposed TS changes are also consistent with the recommendations in the April 9, 1997, letter from C. Grimes (NRC) to J. Davis (NEI).

Additionally, the existing TS provision, "Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant Manager or his designee to ensure that excessive hours have not been assigned" is being deleted. There is no guidance in Generic Letter 82-12, Nuclear Power Plant Staff Working Hours, that discusses these additional controls. The requirement to have the Plant Manager (or his designee) review individual overtime on a monthly bases is unnecessary since sufficient administrative controls and policies already exist in site procedures. In lieu of this approval requirement, a new TS provision is being added to require a periodic independent review of overtime usage, which will ensure that the administrative procedures for overtime use are being effectively implemented.

The proposed TS change which delegates the details of working hour controls to site processes is considered an administrative change which will continue to provide reasonable assurance that impaired performance caused by excessive working hours will not jeopardize safe plant operation.

### **3. Clarification of Requirements for the Shift Technical Advisor Position**

TS Section 5.2.2.g is being revised to eliminate the position title of "Shift Technical Advisor (STA)."

Option 1 of the Commission Policy Statement on Engineering Expertise on Shift can be satisfied by assigning an individual with specified educational qualifications to each operating crew as one of the SROs required by 10 CFR 50.54(m)(2)(i). The existing STS 5.2.2.g wording of, "the STA shall provide advisory support to the Shift Supervisor...", can be easily misinterpreted to infer that separate individuals must fulfill this function. Therefore, the wording is being revised so it is clear that the STA function may be provided by either a separate individual or an individual who also fulfills another role in the shift command structure.

This change is considered administrative since it is a clarification of TS and applicable regulatory requirements will continue to be met.

### **4. Addition of Regulatory Definitions for SRO and RO Positions**

A new TS Section 5.3.2 is added which incorporates the regulatory definitions for the SRO and RO positions for the purpose of applying 10 CFR 55.4, which provides the stipulation of, "Actively performing the functions of an operator or senior operator means that an individual has a position on the shift crew that requires the individual to be licensed as defined in the facility's technical specifications, and that ...". Adding paragraph 5.3.2 ensures that there is no misunderstanding when complying with 10 CFR 55.4 requirements. Adding this paragraph is consistent with the recommendations of the April 9, 1997, letter from C. Grimes (NRC) to J. Davis (NEI).

The minimum staffing requirements stipulated in 10 CFR 50.54(m), for unit members actively performing the functions of an operator or senior operator, can be exceeded by stipulating the enhanced staffing requirements in paragraph 5.3.2. This means the site can take credit for more than the minimum number of

watchstanders required by TS provided that there are administrative controls which assure that functions and duties are divided and rotated in a manner which provides each watchstander meaningful and significant opportunity to maintain proficiency in the performance of the functions of an RO and/or SRO. This added TS provision is considered an administrative change which does not change any existing manning requirements.

**5. Revision of the Radioactive Effluent Controls Program to be consistent with the intent of 10 CFR Part 20**

TS Section 5.5.4, Radioactive Effluent Controls Program, is being modified to be consistent with 10 CFR Part 20 as follows.

In TS 5.5.4.b, a more specific reference to the pertinent section of 10 CFR 20 is substituted. This is an administrative change and no changes to TS limits are involved.

In TS 5.5.4.g and 5.5.4.j, TS wording regarding the site boundary and doses is modified for consistency with TSTF-258, Revision 4 wording. Also, in 5.5.4.g.1, "whole" body is substituted for "total" body which is more appropriate nomenclature. "Whole body" is used in NUREG-1301, Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors, Generic Letter 89-01, Supplement No. 1. The above changes are administrative and have no effect on application of the TS requirements. Subitems 1 and 2 of Insert D of the TSTF have previously been incorporated into BFN TS, therefore, no additional TS changes are required for these two subitems.

TS 5.5.4.k is being added to allow the application of Surveillance Requirements (SRs) provisions 3.0.2 and 3.0.3 to the Radioactive Effluent Controls Program surveillance frequencies. This addition provides scheduling flexibility. SR 3.0.2 permits a 25% extension of the interval specified in the frequency and is generally applied to all SRs including Section 5.0 program-based SRs such as TS 5.5.7, Ventilation Filter Test Program, TS 5.5.8, Explosive Gas and Storage Tank Radioactive Monitoring Program, and TS 5.5.9, Diesel Oil Testing Program. Allowing a 25% extension in the frequency of performing the Radioactive Effluent Controls Program surveillances will have no effect on outcome of the effluent dose calculations. SR 3.0.3 is added in association with SR 3.0.2 to maintain consistency of TS application. The proposed TS changes maintain the same overall level of effluent control program controls while providing operational flexibility.

## **6. Deletion of Periodic Reporting Requirements for Mainsteam Relief Valve Openings**

The reporting of safety and relief valve failures and challenges was originally based on the guidance in NUREG-0694, TMI-Related Requirements for New Operating Licensees." The guidance of NUREG-0694 states: "Assure that any failure of a Power Operated Relief Valve (PORV) or safety valve to close will be reported to the NRC promptly. All challenges to the PORVs or safety valves should be documented in the annual report." This latter annual reporting requirement was carried forth in STS Section 5.6.4.

NRC Generic Letter 97-02, "Revised Contents of the Monthly Operating Report", requests the submittal of less information in the monthly operating report. The generic letter identifies what needs to be reported to support the NRC Performance Indicator Program, and availability and capacity statistics. The generic letter does not specifically identify the need to report challenges to safety/relief valves. Malfunctions of safety/relief valves during reportable plant transients would be discussed in Licensee Event Reports and the special reporting of safety/relief valve challenges serves no explicit purpose. Therefore, it is acceptable to delete the requirement to provide an annual report of all challenges to the safety/relief valve.

## **7. Revision of Radiological Control Requirements for Radiation Areas to be Consistent with those Specified in 10 CFR 20.1601(c).**

TS Section 5.7, High Radiation Area, is being revised in accordance with 10 CFR 20.1601(c) and updates acceptable alternate controls to those provided in 10 CFR 20.1601 as provided in TSTF-258. BFN has previously incorporated many of the clarification changes in TSTF-258, Revision 4 during the original conversion to Improved TS (ITS). Therefore, only changes which are significant or new compared to existing BFN TS are discussed below.

### **5.7.1**

- Definition of the high radiation area is moved to the title block. This is an administrative change.
- The first paragraph of existing TS 5.7.1 has been rearranged into revised TS Sections 5.7.1.a, b, and c and reworded. In combination with new TS 5.7.1.e, TS requirements remain essentially the same.

- Existing TS 5.7.1.a and 5.7.1.b are now TS 5.7.1.d.1 and 5.7.1.d.2, and simplified to match the TSTF wording. In combination with TS 5.7.1.e, requirements remain essentially the same.
- Proposed TS 5.7.1.d.3 is new and allows dose monitoring by means of transmission of dose data to a remote receiver with monitoring by radiation protection personnel. This alternate monitoring method takes advantage of improvements in remote monitoring by electronic means to reduce doses to personnel.
- Existing TS 5.7.1.c is reworded to match the TSTF as new TS 5.7.1.d.4(i). Requirements remain essentially the same.
- In the change to TS 5.7.1.d.4, the term "electronic dosimeter" is deleted from the TSTF text wording. BFN does not use this type of electronic dosimeter (which only measures total dose).
- 5.7.1.d.4(ii) adds a new provision to allow remote monitoring by video. This alternate monitoring method takes advantage of improvements in remote monitoring by electronic means to reduce doses to personnel.
- TS 5.7.1.e is a new clause, but is a composite of the introductory paragraph of existing TS 5.7.1, and TS 5.7.1.b. TS requirements remain essentially the same.

In summary, new TS 5.7.1 is essentially the same as the existing TS with the exception of providing for more flexibility in the area of remote monitoring of radiation areas. This additional flexibility can be used to lower personnel doses by electronic monitoring.

## 5.7.2

- Definition of the high radiation area is moved to the title block. This is an administrative change.
- Existing TS 5.7.2 and 5.7.3 are rearranged into several subsections which provide more detailed requirements for monitoring dose rates. Requirements are equivalently the same or more precise than those in current TS, and closely match the analogous provisions laid out in the proposed revision to TS 5.7.1. Note that the TSTF text is modified in new TS Section 5.7.2.a.1 to incorporate BFN specific manager titles.

- New TS 5.7.2.d.2 and 5.7.2.d.3(ii) add alternate monitoring methods to take advantage of improvements in remote monitoring by electronic means to reduce doses to personnel in the same manner as the previously described changes to TS 5.7.1.
- In the change to TS 5.7.2.d.3, the term "electronic dosimeter" is deleted. BFN does not use the type of electronic dosimeter (which only measures total dose).
- New TS 5.7.2.4 provides, as a contingency methodology, use of a continuously displaying monitoring device when other methods are impractical or inconsistent with maintaining low doses. This flexibility will provide an additional means of keeping doses low consistent with "As Low As is Reasonably Achievable" principles.
- TS 5.7.3 is reworded and replaced by TS 5.7.2.f. No changes in TS requirements are involved.

In summary, revised TS 5.7.2 is essentially the same as the existing TS 5.7.2 and 5.7.3 with the exception of providing more flexibility to use remote electronic equipment for the monitoring of high radiation areas. This additional flexibility can be used to lower personnel doses by electronic monitoring.

**Enclosure 2**  
**TSTF-258, Revision 4**  
**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-258, Revision 4. This TSTF revises TS Section 5.0, Administrative Controls, to delete specific TS staffing requirement provisions for Reactor Operators (ROs), eliminates TS details for working hour limits, clarifies requirements for the Shift Technical Advisor (STA) position, adds regulatory definitions for Senior Reactor Operators and ROs, revises the Radioactive Effluent Controls Program to be consistent with 10 CFR Part 20, deletes periodic reporting requirements for mainsteam relief valve openings, and revises radiological area control requirements for radiation areas to be consistent with those specified in 10 CFR 20.1601(c).

TVA has concluded that operation of Browns Ferry Nuclear Plant (BFN) 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 proposed change is an administrative clarification of existing TS requirements which clarifies and modifies administrative controls in the areas of operator staffing requirements, working hour limits, STA position, Radioactive Effluent Controls Program, periodic reporting requirements for relief valve openings, and radiological control requirements. These TS revisions do not affect analysis inputs for analyzed accidents and transients. 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 proposed change does not involve a physical alteration of the plant, add any new equipment, or require any existing equipment to be operated in a manner different from the present design. Therefore, the proposed amendment does not create the possibility

of a new or different kind of accident from any accident previously evaluated.

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

The proposed changes are administrative type revisions and do not reduce a margin of safety because they have no effect on any safety analyses assumptions. For these reasons, the proposed amendment does not involve a significant reduction in the margin of safety.

**Enclosure 3**  
**TSTF-258, Revision 4**  
**Marked-up TS Pages**

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I. Affected Page List

Unit 1	Unit 2	Unit 3
5.0.3	5.0.3	5.0.3
5.0.4	5.0.4	5.0.4
5.0.5	5.0.5	5.0.5
5.0.6	5.0.6	5.0.6
5.0.10	5.0.10	5.0.10
5.0.11	5.0.11	5.0.11
5.0.12	5.0.12	5.0.12
5.0.24	5.0.24	5.0.24
5.0.26	5.0.26	5.0.26
5.0.27	5.0.27	5.0.27

II. Unit 1 Marked-up TS Pages Attached

ALL  
CHANGES  
TSTF-258  
Rev. 4

5.2 Organization (continued)

5.2.2 Unit Staff

The unit staff organization shall include the following:

- a. A non-licensed operator shall be assigned to each reactor containing fuel and an additional non-licensed operator shall be assigned for each control room from which a reactor is operating in MODES 1, 2, or 3.

When all three units are shutdown or defueled, a total of three non-licensed operators shall be assigned for all three units.

- b. At least one licensed Reactor Operator (RO) shall be present in the control room when fuel is in the reactor. In addition, while the unit is in MODE 1, 2, or 3, at least one licensed Senior Reactor Operator (SRO) shall be present in the control room.

b → Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) and Specifications 5.2.2.a and 5.2.2.c for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements. b

c → A radiological controls technician shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position. personnel

d → Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety related functions (e.g., licensed SROs, licensed ROs, radiological controls technicians, auxiliary operators and key maintenance personnel).

Senior Reactor Operators (SROs),

Reactor Operators (ROs)

(continued)

ALL changes shown:  
TSTF-25B  
Rev. 4

5.2 Organization

5.2.2 Unit Staff (continued)

Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work an 8, 10, or 12 hour day, nominal 40 hour week while the unit is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance, or major plant modification, on a temporary basis the following guidelines shall be followed:

1. An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time;
2. An individual should not be permitted to work more than 16 hours in any 24 hour period, nor more than 24 hours in any 48 hour period, nor more than 72 hours in any 7 day period, all excluding shift turnover time;
3. A break of at least 8 hours should be allowed between work periods, including shift turnover time;
4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

INSERT A

the plant manager's

Any deviation from the above guidelines shall be authorized in advance by the Plant Manager or his designee, in accordance with approved administrative procedures, or by higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation.

INSERT G

Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant Manager or his designee to ensure that excessive hours have not been assigned.

Routine deviation from the above guidelines shall not be

working hour

shall not be

(continued)

**INSERT A**

The controls shall include guidelines on working hours that ensure adequate shift coverage shall be maintained without routine heavy use of overtime.

**INSERT B**

5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed reactor operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54(m).

**INSERT C**

to ten times the concentration values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2402.

**INSERT D**

shall be in accordance with the following:

1. For noble gases: a dose rate  $\leq 500$  mrem/yr to the whole body and a dose rate  $\leq 3000$  mrem/yr to the skin, and
2. For iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days: a dose rate  $\leq 1500$  mrem/yr to any organ;

**INSERT E**

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequency.

**INSERT G**

Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned.

5.2 Organization

---

5.2.2 Unit Staff (continued)

- e. (1) The Operations Superintendent shall hold a current SRO license on a Browns Ferry unit. A - individual
- b. (2) ~~The Shift Technical Advisor (STA)~~ shall provide advisory technical support to the ~~Shift Manager~~ in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. ~~In addition, the STA~~ shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.

---

This individual

Shift operating crew \*

\* BFN specific nomenclature

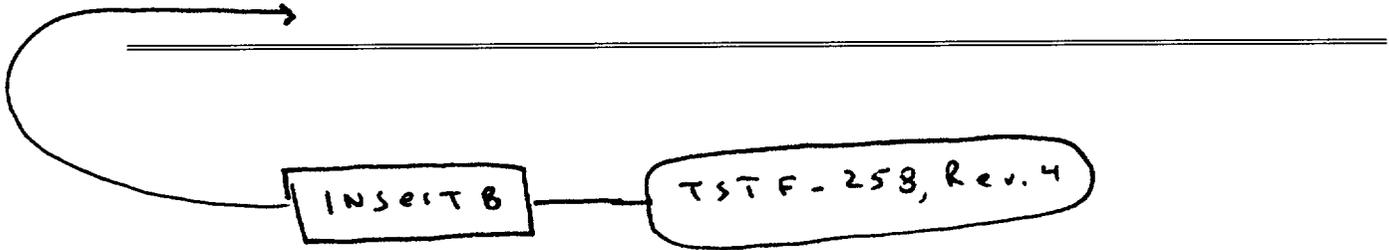
All changes  
TSTF-258 Rev. 4

5.0 ADMINISTRATIVE CONTROLS

5.3 Unit Staff Qualifications

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5.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications referenced for comparable positions in Regulatory Guide 1.8, Revision 2 (April 1987) for all new personnel qualifying on positions identified in regulatory position C.1 after January 1, 1990. Personnel qualified on these positions prior to this date will still meet the requirements of Regulatory Guide 1.8, Revision 1-R (May 1977).



**INSERT A**

The controls shall include guidelines on working hours that ensure adequate shift coverage shall be maintained without routine heavy use of overtime.

**INSERT B**

5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed reactor operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54(m).

**INSERT C**

to ten times the concentration values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2402.

**INSERT D**

shall be in accordance with the following:

1. For noble gases: a dose rate  $\leq$  500 mrem/yr to the whole body and a dose rate  $\leq$  3000 mrem/yr to the skin, and
2. For iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days: a dose rate  $\leq$  1500 mrem/yr to any organ;

**INSERT E**

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequency.

**INSERT G**

Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned.

5.5 Programs and Manuals (continued)

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5.5.3 Post Accident Sampling

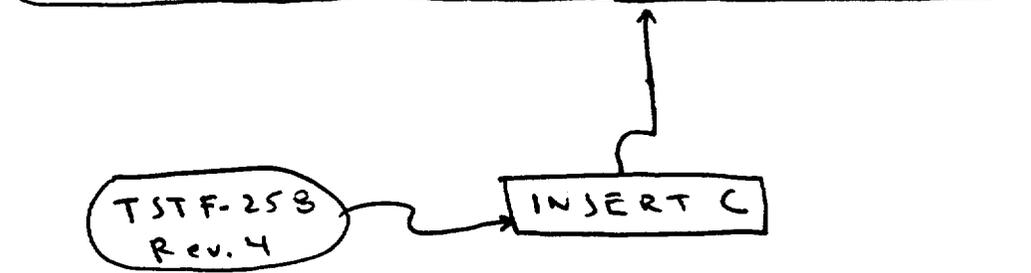
This program provides controls that ensure the capability to obtain and analyze reactor coolant, radioactive gases, and particulates in plant gaseous effluents and containment atmosphere samples under accident conditions. The program shall include the following:

- a. Training of personnel;
- b. Procedures for sampling and analysis; and
- c. Provisions for maintenance of sampling and analysis equipment.

5.5.4 Radioactive Effluent Controls Program

This program conforms to 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program shall be contained in the ODCM, shall be implemented by procedures, and shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- a. Limitations on the functional capability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM;
- b. Limitations on the concentrations of radioactive material released in liquid effluents to unrestricted areas, conforming to ~~10 times the concentration values in~~ 10 CFR 20, Appendix B, Table 2, Column 2;



(continued)

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**INSERT A**

The controls shall include guidelines on working hours that ensure adequate shift coverage shall be maintained without routine heavy use of overtime.

**INSERT B**

5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed reactor operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54(m).

**INSERT C**

to ten times the concentration values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2402;

**INSERT D**

shall be in accordance with the following:

1. For noble gases: a dose rate  $\leq 500$  mrem/yr to the whole body and a dose rate  $\leq 3000$  mrem/yr to the skin, and
2. For iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days: a dose rate  $\leq 1500$  mrem/yr to any organ;

**INSERT E**

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequency.

**INSERT G**

Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned.

5.5 Programs and Manuals

5.5.4 Radioactive Effluent Controls Program (continued)

- c. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM;
- d. Limitations on the annual and quarterly doses or dose commitment to a member of the public from radioactive materials in liquid effluents released from each unit to unrestricted areas, conforming to 10 CFR 50, Appendix I;
- e. Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days;
- f. Limitations on the functional capability and use of the liquid and gaseous effluent treatment systems to ensure that appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a period of 31 days would exceed 2% of the guidelines for the annual dose or dose commitment, conforming to 10 CFR 50, Appendix I;

g. Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the site boundary shall be limited to the following:

- 1. For noble gases: a dose rate of  $\leq 500$  mrem/yr to the total body and  $\leq 3000$  mrem/yr to the skin, and
- 2. For iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives  $> 8$  days: a dose rate of  $\leq 1500$  mrem/yr to any organ;

from the site

at or

whole

in accordance with

ALL CHANGES  
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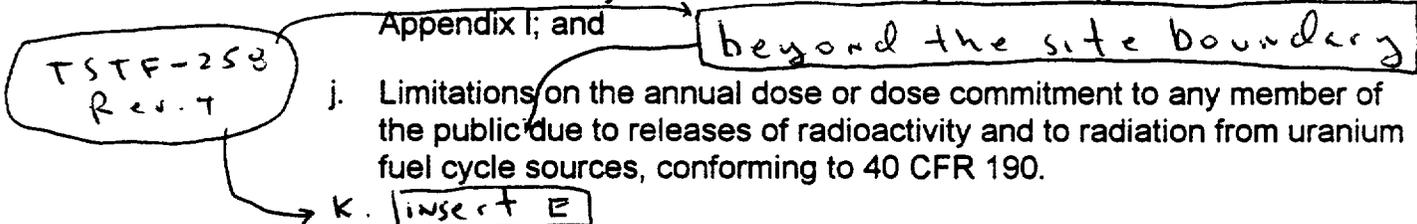
(continued)

5.5 Programs and Manuals

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5.5.4 Radioactive Effluent Controls Program (continued)

- h. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I;
- i. Limitations on the annual and quarterly doses to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives > 8 days in gaseous effluents released from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and
- j. Limitations on the annual dose or dose commitment to any member of the public due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190.
- k. insert E



5.5.5 Component Cyclic or Transient Limit

This program provides controls to track the FSAR Section 4.2.5, cyclic and transient occurrences to ensure that components are maintained within the design limits.

5.5.6 Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components. The program shall include the following:

- a. Testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda are as follows:

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(continued)

**INSERT A**

The controls shall include guidelines on working hours that ensure adequate shift coverage shall be maintained without routine heavy use of overtime.

**INSERT B**

5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed reactor operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54(m).

**INSERT C**

to ten times the concentration values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2402.

**INSERT D**

shall be in accordance with the following:

1. For noble gases: a dose rate  $\leq 500$  mrem/yr to the whole body and a dose rate  $\leq 3000$  mrem/yr to the skin, and
2. For iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days: a dose rate  $\leq 1500$  mrem/yr to any organ;

**INSERT E**

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequency.

**INSERT G**

Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned.

5.6 Reporting Requirements (continued)

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5.6.4 Monthly Operating Reports

Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report. ~~Annually, in the monthly report for March, any mainsteam relief valve that opens in response to reaching its setpoint or due to operator action to control reactor pressure shall be reported.~~

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Rev. 4

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
  - (1) The APLHGRs for Specification 3.2.1;
  - (2) The LHGR for Specification 3.2.3;
  - (3) The MCPR Operating Limits for Specification 3.2.2; and
  - (4) The RBM setpoints and applicable reactor thermal power ranges for each of the setpoints for Specification 3.3.2.1, Table 3.3.2.1-1.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel," (latest approved version for BFN).

(continued)

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## 5.0 ADMINISTRATIVE CONTROLS

### 5.7 High Radiation Area

As provided in 10 CFR 20, paragraph 20.1601(c), the following controls shall be applied to high radiation areas as an alternative to the controls required by 10 CFR 20.1601(a) and (b):

5.7.1 Each high radiation area, as defined in 10 CFR 20, shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP). Individuals qualified in radiation protection procedures (e.g., a radiological controls technician) or personnel escorted by such individuals, shall be exempt from the RWP requirements during the performance of their assigned duties in high radiation areas where radiation doses could be received that are  $\leq 1$  rem in one hour as measured at 30 centimeters from the radiation source or from the surface which the radiation penetrates, provided they otherwise comply with approved radiation protection procedures for entry into such high radiation areas.

Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device that continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them.
- c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive radiation protection control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified in the RWP.

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(continued)

5.7 High Radiation Area (continued)

5.7.2 In addition to the requirements of Specification 5.7.1, areas that are accessible to personnel and that have radiation levels  $> 1$  rem in one hour as measured at 30 centimeters, but  $< 500$  rads in one hour at one meter from the radiation source or from the surface which the radiation penetrates, shall be provided with locked or continuously guarded doors to prevent unauthorized entry. The keys shall be under the administrative control of the duty Shift Manager, Radiological Controls Manager, or their respective designees. Doors shall remain locked except during periods of access by personnel under an approved RWP which specifies the dose rates in the immediate work areas and the maximum allowable stay times for individuals in that area. In lieu of the stay time requirement of the RWP, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by individuals qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

5.7.3 Individual high radiation areas that are accessible to personnel, have radiation levels  $> 1$  rem in one hour as measured at 30 centimeters, but  $< 500$  rads in one hour at one meter from the radiation source, are located within large areas where no enclosure exists for purposes of locking and where no enclosure can be reasonably constructed around the individual area, shall be barricaded, conspicuously posted, and a flashing light shall be activated as a warning device whenever the dose rate in the area exceeds or will shortly exceed 1 rem in one hour as measured at 30 centimeters from the radiation source or from the surface which the radiation penetrates.

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5.0 ADMINISTRATIVE CONTROLS

5.7 High Radiation Area

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As provided in paragraph 20.1601(c) of 10 CFR Part 20, the following controls shall be applied to high radiation areas in place of the controls required by paragraph 20.1601(a) and (b) of 10 CFR Part 20:

5.7.1 High Radiation Areas with Dose Rates Not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation

- a. Each entryway to such an area shall be barricaded and conspicuously posted as a high radiation area. Such barricades may be opened as necessary to permit entry or exit of personnel or equipment.
- b. Access to, and activities in, each such area shall be controlled by means of Radiation Work Permit (RWP) or equivalent that includes specification of radiation dose rates in the immediate work area(s) and other appropriate radiation protection equipment and measures.
- c. Individuals qualified in radiation protection procedures and personnel continuously escorted by such individuals may be exempted from the requirement for an RWP or equivalent while performing their assigned duties provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
  1. A radiation monitoring device that continuously displays radiation dose rates in the area; or
  2. A radiation monitoring device that continuously integrates the radiation dose rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or
  3. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area, or

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(continued)

INSERT F

5.7 High Radiation Area

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5.7.1 High Radiation Areas with Dose Rates Not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation (continued)

4. A self-reading dosimeter (e.g., pocket ionization chamber <sup>or</sup> ~~electronic dosimeter~~) and,

(i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or

(ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with individuals in the area who are covered by such surveillance.

e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.

BFN  
specific  
change



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TSTF-258, Rev 4

5.7 High Radiation Area

5.7.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation

a. Each entryway to such an area shall be conspicuously posted as a high radiation area and shall be provided with a locked or continuously guarded door or gate that prevents unauthorized entry, and, in addition:

1. All such door and gate keys shall be maintained under the administrative control of the shift ~~supervisor~~ radiation ~~protection manager~~, or his or her designee.

MANAGER \*

\*  
radiation-logical  
controls  
superintendent

2. Doors and gates shall remain locked except during periods of personnel or equipment entry or exit.

b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent that includes specification of radiation dose rates in the immediate work area(s) and other appropriate radiation protection equipment and measures.

c. Individuals qualified in radiation protection procedures may be exempted from the requirement for an RWP or equivalent while performing radiation surveys in such areas provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.

d. Each individual or group entering such an area shall possess:

1. A radiation monitoring device that continuously integrates the radiation rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or

\* BFN specific titles

(continued)

INSERT F

TSTF-258, Rev 4

5.7 High Radiation Area

5.7.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation (continued)

2. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area with the means to communicate with and control every individual in the area, or
3. A self-reading dosimeter (e.g., pocket ionization chamber or ~~electronic dosimeter~~) and,
  - (i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or
  - (ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with and control every individual in the area.
4. In those cases where options (2) and (3), above, are impractical or determined to be inconsistent with the "As Low As is Reasonably Achievable" principle, a radiation monitoring device that continuously displays radiation dose rates in the area.

BFN  
specific  
change

- e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. . These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial

(continued)

entry.

INSERT F

INSERT F

TSTF-258, Rev 4

5.7 High Radiation Area

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5.7.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation (continued)

- f. Such individual areas that are within a larger area where no enclosure exists for the purpose of locking and where no enclosure can reasonably be constructed around the individual area need not be controlled by a locked door or gate, nor continuously guarded, but shall be barricaded, conspicuously posted, and a clearly visible flashing light shall be activated at the area as a warning device.
-

**TSTF-364, Revision 0**

**Revision to TS Bases Control Program to Incorporate  
Changes to 10 CFR 50.59**

**Enclosure 1**  
**TSTF-364, Revision 0**  
**Description of Change**

**Description of Change**

TSTF-364, Revision 0 revises Section 5.5.10, Technical Specifications (TS) Bases Control Program, to reference 10 CFR 50.59 rather than "unreviewed safety question". Also, editorial change WOG-ED-24, which substitutes "require" for "involve" in 5.5.10.b is made for consistency in usage.

See the attached marked-up Unit 1 TS pages for the detailed changes. The proposed TS changes are identical for Units 2 and 3.

**Comparison to TSTF**

TSTF-364, Revision 0, is adopted with no variances.

**Justification for Change**

BFN TS Section 5.5.10 (Standard TS 5.5.14) describes the TS Bases Control Program. TS 5.5.10.b.2 provides that a Final Safety Analysis Report (FSAR) change or TS Bases change may be made if the change does not involve an unreviewed safety question. The term "unreviewed safety question" is being eliminated from 10 CFR 50.59 in a pending CFR change. To accommodate this change, TSTF-364 modifies 5.5.10.b.2 to simply reference changes pursuant to 10 CFR 50.59 rather than "unreviewed safety question". This change is administrative and has no affect on the current review process for FSAR and Bases changes. Also, editorial change WOG-ED-24, which substitutes "require" for "involve" in 5.5.10.b is made for consistency in word usage.

**Enclosure 2**  
**TSTF-364, Revision 0**  
**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-364, Revision 0 and WOG-ED-24. This TSTF revises Section 5.5.10, TS Bases Control Program, to reference 10 CFR 50.59 rather than "unreviewed safety question".

TVA has concluded that operation of Browns Ferry Nuclear Plant (BFN) 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 proposed change is an administrative modification of existing TS requirements for the TS Bases change program to simply reference changes pursuant to 10 CFR 50.59 rather than "unreviewed safety question". This change is administrative and has no effect on the current review and approval process for Final Safety Analyses Report and Bases changes. As such, there is no effect on initiators of analyzed events or assumed mitigation of accidents or transients. 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 proposed change does not involve a physical alteration of the plant, add any new equipment, or require any existing equipment to be operated in a manner different from the present design. Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The proposed change modifies is an administrative modification of existing TS requirements for the TS FSAR

and Bases change program to simply reference changes pursuant to 10 CFR 50.59 rather than "unreviewed safety question". This change is administrative and has no affect on the current review process for FSAR and Bases changes, and will not reduce a margin of safety because it has no effect on any safety analyses assumptions. For these reasons, the proposed amendment does not involve a significant reduction in the margin of safety.

**Enclosure 3**  
**TSTF-364, Revision 0**  
**Marked-up TS Pages**

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I. Affected Page List

Unit 1	Unit 2	Unit 3
5.0-18	5.0-18	5.0-18

II. Unit 1 Marked-up TS Pages Attached

5.5 Programs and Manuals (continued)

5.5.10 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- b. Licensees may make changes to Bases without prior NRC approval provided the changes do not ~~involve~~ either of the following:
  1. a change in the TS incorporated in the license; or
  2. a change to the updated FSAR or Bases that ~~involves an~~ unreviewed safety question as defined in 10 CFR 50.59.
- c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the FSAR.
- d. Proposed changes that meet the criteria of Specification 5.5.10b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

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require

requires NRC approval pursuant to

TSTF-364  
Rev. 0

(continued)