

June 16, 2006

Technical Specification Task Force  
11921 Rockville Pike  
Suite 100  
Rockville, MD 20852

Dear Members of the TSTF:

The Nuclear Regulatory Commission has completed the review of the Technical Specification Task Force (TSTF) Change Traveler, TSTF-491, Revision 0, "Removal of Main Steam and Main Feedwater Valve Isolation Times from the Technical Specifications". The staff has approved the proposed change. The staff's Safety Evaluation Report for TSTF-491 is enclosed. Also enclosed are the model License Amendment Request and the model No Significant Hazards Consideration.

Please contact me at (301) 415-0184 or e-mail [TJK1@nrc.gov](mailto:TJK1@nrc.gov) if you have any questions or need further information on these proposed changes.

Sincerely,

**/RA by C. Schulten for/**  
Timothy J. Kobetz, Chief  
Technical Specifications Branch  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

Enclosures: As stated

cc: M. Crowthers (BWROG)  
W. Sparkman (PWROG/W)  
P. Infanger (PWROG/B&W)  
B. Woods (PWROG/CE)  
D. Hoffman (EXCEL)  
B. Mann (EXCEL)

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DATE	06/01/2006	06/02/2006	06/16/2006

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# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

## TECHNICAL SPECIFICATION TASK FORCE-491, Rev.0

### “REMOVAL OF MAIN STEAM AND MAIN FEEDWATER VALVE

### ISOLATION TIMES FROM TECHNICAL SPECIFICATIONS”

#### 1.0 INTRODUCTION

By letter dated September 13, 2005, the Technical Specifications Task Force submitted Technical Specification Task Force Change Traveler, TSTF-491, R.0, “Removal of Main Steam and Feedwater Valve Isolation Times from Technical Specifications”. Specifically, the proposed revisions to the Standard Technical Specifications (STS) relocate the isolation times for the main steam isolation valves, main feedwater isolation valves, main feedwater regulation/control valves and associated valves to the Licensing Requirements Manual. The actual isolation times in the present STS are replaced with the phrase “within limits”.

#### 2.0 REGULATORY EVALUATION

Section 182a of the Atomic Energy Act (the “Act”) requires applicants for nuclear power plant operating licenses to include TS as part of the license. The TS ensure the operational capability of structures, systems and components that are required to protect the health and safety of the public. The Commission’s regulatory requirements related to the content of the TS are contained in 10 CFR Section 50.36. That regulation requires that the TS include items in the following specific categories: (1) safety limits, limiting safety systems settings, and limiting control settings (50.36(c)(1)); (2) Limiting Conditions for Operation (50.36(c)(2)); (3) Surveillance Requirements (50.36(c)(3)); (4) design features (50.34(c)(4)); and (5) administrative controls (50.36(c)(5)).

In general, there are two classes of changes to TS: (1) changes needed to reflect modifications to the design basis (TS are derived from the design basis), and (2) voluntary changes to take advantage of the evolution in policy and guidance as to the required content and preferred format of TS over time. This amendment deals with the second class of changes.

In determining the acceptability of revising STS 3.7.2 and 3.7.3, the staff used the accumulation of generically approved guidance in NUREG-1430, “Standard Technical Specifications, Revision 3 Babcock and Wilcox Plants,” dated June, 2004; NUREG-1431, Revision 3, “Standard Technical Specifications, Westinghouse Plants,” dated June, 2004; and NUREG-1432, “Standard Technical Specifications, Revision 3 Combustion Engineering Plants,” dated June, 2004.

Licensees may revise the TS to adopt current improved STS format and content provided that plant-specific review supports a finding of continued adequate safety because: (1) the change is editorial, administrative or provides clarification (i.e., no requirements are materially altered), (2) the change is more restrictive than the licensee’s current requirement, or (3) the change is less restrictive than the licensee’s current requirement, but nonetheless still affords adequate

assurance of safety when judged against current regulatory standards. The detailed application of this general framework, and additional specialized guidance, are discussed in Section 3.0 in the context of specific proposed changes.

### 3.0 TECHNICAL EVALUATION

The NRC staff has reviewed the justification for the proposed TSTF as described in the September 13, 2005 submittal. The detailed evaluation below will support the conclusion that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

#### 3.1 Main Steam Isolation Valves (MSIV)

One MSIV is located in each main steam line outside of the containment. Closing the MSIVs isolates each steam generator from the others and isolates the turbine, steam bypass system and other auxiliary steam supplies from the steam generator.

By isolating the steam flow from the secondary side of the steam generator the MSIVs prevent over cooling the reactor core following a high energy line break (HELB). By preventing core overcooling the MSIVs protect the reactor core from being damaged.

TSTF-491 is proposing to relocate the required closure times for the MSIVs to the Licensing Requirements Manual (LRM). Changes to the LRM are subject to the 10 CFR 50.59 process. The 10 CFR 50.59 criteria provide adequate assurance that prior staff review and approval will be requested by the licensee for changes to the LRM requirements with the potential to affect the safe operation of the plant. Furthermore, the MSIVs are subject to periodic testing and acceptance criteria in accordance with the Inservice Testing (IST) Program. Compliance with the IST Program is required by Section 5.5.7 of the Standard Technical Specifications (STS) and 10 CFR 50.55. The IST Program includes specific reference value baseline operating times for valves that are not subject to arbitrary changes.

10 CFR 50.36 requires the inclusion of the periodic testing of the MSIVs in the Surveillance Requirements not the actual closure time of the valves. TSTF-491 change maintains the periodic testing requirements for MSIVs in accordance with 10 CFR 50.36.

Based on the requirements of 10 CFR 50.36, 10 CFR 50.59 and IST Program, the staff concludes that relocating the MSIV closure time to the LRM is acceptable.

#### 3.2 Main Feedwater Isolation Valve (MFIV), Main Feedwater Regulation/Control Valve (MFRV) and Associated Bypass Valves (BV)

The MFIVs and BVs or the MFRVs and BVs isolate the nonsafety related portions from the safety related portions of the system. In the event of a secondary side pipe rupture inside containment, these valves limit the quantity of high energy fluid that enters the containment through the break and provide a pressure boundary for the controlled addition of auxiliary feedwater to the intact loops.

By isolating the feedwater flow from the affected steam generator the MFIVs, MFRVs and BVs prevent overcooling the reactor core and over pressurizing of the containment from feedwater pump runout.

As with the MSIVs, TSTF-491 is also proposing to relocate the required closure times for the MFIVs, MFRVs and BVS to the Licensing Requirements Manual (LRM). Changes to the LRM are subject to the 10 CFR 50.59 process. The 10 CFR 50.59 criteria provide adequate assurance that prior staff review and approval will be requested by the licensee for changes to the LRM requirements with the potential to affect the safe operation of the plant. Furthermore, the MFIVs, MFRVs and BVs are subject to periodic testing and acceptance criteria in accordance with the Inservice Testing (IST) Program. Compliance with the IST Program is required by Section 5.5.7 of the Standard Technical Specifications (STS) and 10 CFR 50.55. The IST Program includes specific reference value baseline operating times for valves that are not subject to arbitrary changes.

10 CFR 50.36 requires the inclusion of the periodic testing of the MFIVs, MFRVs and BVs in the Surveillance Requirements not the actual closure time of the valves. TSTF-491 maintains the periodic testing requirements for MFIVs, MFRVs and BVs in accordance with 10 CFR 50.36.

Based on the requirements of 10 CFR 50.36, 10 CFR 50.59 and the IST Program, the staff concludes that relocating the MFIVs, MFRVs and BVs closure times to the LRM is acceptable.

#### 4.0 CONCLUSION

The changes proposed by TSTF-491 would make the affected surveillances more consistent with the ESF Response Time requirement in SR 3.3.2.10 which states "Verify ESFAS REPONSE TIMES are within limits". The NRC staff concludes that the proposed changes are consistent with the requirements as contained in 10 CFR 50.36. On this basis, the NRC staff concludes that the changes proposed by TSTF-491 are acceptable.

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; (2) such activities will be conducted in compliance with the Commission's regulations; and, (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

FOR INCLUSION ON THE TECHNICAL SPECIFICATIONS WEB PAGE

**THE FOLLOWING EXAMPLE OF AN APPLICATION WAS PREPARED BY THE NRC STAFF TO FACILITATE USE OF THE CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS (CLIIP). THE MODEL PROVIDES THE EXPECTED LEVEL OF DETAIL AND CONTENT FOR AN APPLICATION TO ADOPT TSTF-491, REVISION 0, REMOVAL OF MAIN STEAM AND MAIN FEEDWATER VALVE ISOLATION TIMES FROM THE TECHNICAL SPECIFICATIONS ASSOCIATED TS BASES. LICENSEES REMAIN RESPONSIBLE FOR ENSURING THAT THEIR ACTUAL APPLICATION FULFILLS THEIR ADMINISTRATIVE REQUIREMENTS AS WELL AS NUCLEAR REGULATORY COMMISSION REGULATIONS.**

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

SUBJECT: PLANT NAME  
DOCKET NO. 50-  
APPLICATION FOR TECHNICAL SPECIFICATION CHANGE TSTF-491,  
REMOVAL OF MAIN STEAM AND MAIN FEEDWATER VALVE ISOLATION  
TIMES FROM TECHNICAL SPECIFICATIONS

Gentlemen:

In accordance with the provisions of 10 CFR 50.90 [LICENSEE] is submitting a request for an amendment to the technical specifications (TS) for [PLANT NAME, UNIT NOS].

The proposed amendment would modify TS by relocating the main steam and main feedwater valve isolation times to the License Requirement Manual and replacing the isolation times with the phrase "within limits".

Enclosure 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications. Enclosure 2 provides the existing TS pages marked up to show the proposed change. Enclosure 3 provides revised (clean) TS pages. Enclosure 4 provides the existing TS Bases pages marked up to show the proposed change (*for information only*).

[LICENSEE] requests approval of the proposed license amendment by [DATE], with the amendment being implemented [BY DATE OR WITHIN X DAYS].

In accordance with 10 CFR 50.91, a copy of this application, with enclosures, is being provided to the designated [STATE] Official.

I declare under penalty of perjury under the laws of the United States of America that I am authorized by [LICENSEE] to make this request and that the foregoing is true and correct. (Note that request may be notarized in lieu of using this oath or affirmation statement).

If you should have any questions regarding this submittal, please contact [NAME, TELEPHONE NUMBER]

Sincerely,  
[Name, Title]

Enclosures:

1. Description and Assessment
2. Proposed Technical Specification Changes
3. Revised Technical Specification Pages
4. Proposed Technical Specification Bases Changes

cc: NRC Project Manager  
NRC Regional Office  
NRC Resident Inspector  
State Contact

# ENCLOSURE 1

## Description and Assessment

### 1.0 DESCRIPTION

The proposed amendment would modify technical specifications by relocating the isolation times for the main steam isolation valves, main feedwater isolation valves, and associated valves to the Licensing Requirements Manual. The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) TSTF-491 Revision 0, "Removal of Main Steam and Feedwater Valve Isolation Times from Technical Specifications."<sup>1</sup>

### 2.0 ASSESSMENT

#### 2.1 Applicability of TSTF-491, and Published Safety Evaluation

[LICENSEE] has reviewed TSTF-491 (Reference 1), and the NRC model safety evaluation (SE). [LICENSEE] has concluded that the information in TSTF-374, as well as the SE prepared by the NRC staff are applicable to [PLANT, UNIT NOS.] and justify this amendment for the incorporation of the changes to the [PLANT] TS. [NOTE: Only those changes proposed in TSTF-491 are addressed in the model SE. The model SE addresses the entire fleet of Combustion Engineering, Babcock & Wilcox, Westinghouse Pressurized Water Reactors, General Electric, and Boiling Water Reactor plants. The plants adopting TSTF-491 must confirm the applicability of the changes to their plant.]

#### 2.2 Optional Changes and Variations

[LICENSEE] is not proposing any variations or deviations from the TS changes described in the TSTF-491 or the NRC staff's model safety evaluation dated [DATE]. [NOTE: The TSTF does not prevent licensees from requesting an alternate approach or proposing changes without the requested Bases or Bases control program. However, deviations from the approach recommended in this TSTF may require additional review by the NRC staff and may increase the time and resources needed for the review. Significant variations from the approach, or inclusion of additional changes to the license, will result in staff rejection of the submittal. Instead, licensees desiring significant variations and/or additional changes should submit a LAR that does not claim to adopt TSTF-491.]

### 3.0 REGULATORY ANALYSIS

#### 3.1 No Significant Hazards Consideration Determination

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<sup>1</sup>[In conjunction with the proposed change, technical specifications (TS) requirements for a Bases Control Program, consistent with the TS Bases Control Program described in Section 5.5 of the applicable vendor's standard TS (STS), shall be incorporated into the licensee's TS, if not already in the TS.]



[LICENSEE] has reviewed the proposed no significant hazards consideration determination (NSHCD). [LICENSEE] has concluded that the proposed NSHCD enclosed is applicable to [PLANT] and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

### **3.2 Verification and Commitments**

[LICENSEE] has proposed TS Bases consistent with TSTF-491, which provide guidance and details on how to implement the new requirements. Finally, [LICENSEE] has a Bases Control Program consistent with Section 5.5 of the Standard Technical Specifications (STS).

### **4.0 ENVIRONMENTAL EVALUATION**

The amendment changes requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment adopting TSTF-491, Rev 0, involves no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

### **5.0 REFERENCES**

1. TSTF-374, Revision 0, "Removal of Main Steam and Feedwater Valve Isolation Times from Technical Specifications."

## Proposed No Significant Hazards Consideration Determination

Description of Amendment Request: A change is proposed to the technical specifications (TS) of [plant name], consistent with Technical Specifications Task Force (TSTF) change TSTF-491 to the standard technical specifications (STS) for PWR Plants (NUREG 1430, NUREG 1431 and NUREG 1433) to relocate the main steam and main feedwater valve isolation times to the License Requirement Manual and replace the isolation times with the phrase, "within limits."

*Basis for proposed no-significant-hazards-consideration determination:* As required by 10 CFR 50.91(a), an analysis of the issue of no-significant-hazards-consideration is presented below:

### **Criterion 1** — The Proposed Change Does Not Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated

The proposed change allows relocating main steam and main feedwater valve isolation times to the License Requirements Manual. The proposed change is described in Technical Specification Task Force (TSTF) Standard TS Change Traveler TSTF-491 related to relocating the main steam and main feedwater valves isolation times to the License Requirements Manual and replacing the isolation time with the phrase, "within limits."

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed). The proposed changes relocate the main steam and main feedwater isolation valve times to the license requirements manual. The requirements to perform the testing of these isolation valves are retained in the TS. Future changes to the licensee-controlled document will be evaluated pursuant to the requirements of 10 CFR 50.59, "Changes, test and experiments", to ensure that such changes do not result in more than minimal increase in the probability or consequences of an accident previously evaluated.

The proposed changes do not adversely affect accident initiators or precursors nor alter the design assumptions, conditions, and configuration of the facility or the manner in which the plant is operated and maintained. The proposed changes do not adversely affect the ability of structures, systems and components (SSCs) to perform their intended safety function to mitigate the consequences of an initiating event within the assumed acceptance limits. The proposed changes do not affect the source term, containment isolation, or radiological consequences of any accident previously evaluated. Further, the proposed changes do not increase the types and the amounts of radioactive effluent that may be released, nor significantly increase individual or cumulative occupation/public radiation exposures.

Therefore, the changes do not involve a significant increase in the probability or consequences of any accident previously evaluated.

**Criterion 2 — The Proposed Change Does Not Create the Possibility of a New or Different Kind of Accident from any Previously Evaluated**

The proposed changes relocate the main steam and main feedwater valve isolation times to the License Requirements Manual. In addition, the valve isolation times are replaced in the TS with the phrase “within limits”. The changes do not involve a physical altering of the plant (i.e., no new or different type of equipment will be installed) or a change in methods governing normal plant operation. The requirements in the TS continue to require testing of the main steam and main feedwater isolation valves to ensure the proper functioning of these isolation valves.

Therefore, the changes do not create the possibility of a new or different kind of accident from any previously evaluated.

**Criterion 3 — The Proposed Change Does Not Involve a Significant Reduction in the Margin of Safety**

The proposed changes relocate the main steam and main feedwater valve isolation times to the License Requirements Manual. In addition, the valve isolation times are replaced in the TS with the phrase “within limits”. Instituting the proposed changes will continue to ensure the testing of main steam and main feedwater isolation valves. Changes to the license controlled document (LRM) are performed in accordance with 10 CFR 50.59. This approach provides an effective level of regulatory control and ensures that main steam and feedwater isolation valve testing is conducted such that there is no significant reduction in the margin of safety.

The margin of safety provided by the isolation valves is unaffected by the proposed changes since there continue to be TS requirements to ensure the testing of main steam and main feedwater isolation valves. The proposed changes maintain sufficient controls to preserve the current margins of safety.

Based upon the reasoning above, the NRC staff concludes that the amendment request involves no significant hazards consideration.

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**ENCLOSURE 2**

**PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)**

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**ENCLOSURE 3**

**PROPOSED TECHNICAL SPECIFICATION PAGES**

[Clean copies of Licensee specific Technical Specification (TS) pages, corresponding to the TS pages changed by TSTF-491, Rev 0, are to be included in Enclosure 3]

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**ENCLOSURE 4**

**PROPOSED CHANGES TO TECHNICAL SPECIFICATION BASES PAGES**

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