

September 28, 2010

Attn: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Subject: Response to NRC's Request for Additional Information Regarding TSTF-432, Revision 0, "Change in Technical Specifications End States (WCAP-16294)."

Reference: 1. Letter from B. W. Miller (NRC) to Technical Specifications Task Force, "Acceptance for Review and Request for Additional Information for Traveler TSTF-432, Revision 0, "Change in Technical Specifications End States (WCAP-16294)," (TAC No. ME3469)," dated July 7, 2010

Please find attached the response to the NRC's Request for Additional Information regarding TSTF-432, "Change in Technical Specifications End States (WCAP-16294)."

Should you have any questions regarding this response, please contact Jim Andrachek at 412.374.5018 or [andracid@westinghouse.com](mailto:andracid@westinghouse.com)



Kenneth J. Schrader (PWROG/W)



Donald W. Gregoire (BWROG)



Thomas W. Raidy (PWROG/CE)



Reene Gambrell (PWROG/B&W)

cc: Frederick Brown, Director, Division of Inspection and Regional Support  
Robert Elliott, Technical Specifications Branch, NRC  
Barry Miller, Licensing Processes Branch, NRC

11921 Rockville Pike, Suite 100, Rockville, MD 20852  
Phone: 301-984-4400, Fax: 301-984-7600  
Administration by EXCEL Services Corporation



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## Attachment

The Technical Specifications Task Force (TSTF) proposed changes to the Standard Technical Specifications (STS) NUREG-1431, "Standard Technical Specifications Westinghouse Plants," Revision 3.0. The proposed changes implement Risk-Informed Technical Specification Initiative 1, "Technical Specifications Actions End States Modification" in NUREG-1431. The NRC staff requests the following additional information from the TSTF to complete its review of the proposed Traveler TSTF-432.

### Basis For Request for Additional Information #1

The NRC's final safety evaluation for Topical Report (TR) WCAP-16294-NP, Revision 0, "Risk-Informed Evaluation to Technical Specification Required Endstates for Westinghouse Nuclear Steam Supply System Pressurized Water Reactors," (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100770146) found the proposed revisions to the STS and Bases acceptable subject to the limitations and conditions shown in Section 4.0. Section 4.0 states,

"Licensees requesting the TS changes to operate their plants in accordance with TR WCAP-16294-NP must include the following in the TS Bases to ensure that the implementation of this TR will be consistent with the NRC staff's evaluation:

1. The primary purpose for entry into Mode 4 end states is to accomplish short duration repairs to restore inoperable equipment.
2. The availability of the TDAFW pump is assured while the plant remains in Mode 4 in accordance with the assumption of the TR.
3. Operational procedures have been established to ensure long-term decay heat removal, should the SG cooling be lost while operating in Mode 4.
4. Include the NRC approved-TR as a reference in the TS Bases."

In the Submittal of TSTF-432, Revision 0, each Limiting Condition for Operation (LCO) with modified TS Required Action(s), to a new endstate of MODE 4, has a TS Bases reference to the NRC approved TR and the following paragraphs are added to the TS Bases Actions section:

"Remaining within the Applicability of the LCO is acceptable because the plant risk in MODE 4 is similar to or lower than MODE 5 (Ref. ...). In MODE 4 there are two means of decay heat removal, which provides diversity and defense in depth. However, voluntary entry into MODE 5 may be made as it is also acceptable from a risk perspective.

Required Action ... is modified by a Note that states that LCO 3.0.4.a is not applicable when entering MODE 4. This Note prohibits the use of LCO 3.0.4.a to enter MODE 4 during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering MODE 4, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit."

These proposed TS Bases changes meet item 4 of the limitation and conditions section in the NRC's final safety evaluation for TR WCAP-16294-NP.

A reviewer's note is added to the TS Bases LCO section in the auxiliary feedwater (AFW) system, TS 3.7.5.

Reviewer's notes are useful to NRC reviewers and are available to all licensees. However, the NRC staff has a couple of concerns with the reviewer's note. The first concern is the statements, "The requirement to maintain the TDAFW train available in order to remain in MODE 4 will be addressed by a licensing commitment to include a requirement that will be located in the Technical Specification Bases, a Licensee Controlled Document, or implementing procedures" and "The additional requirement to maintain the TDAFW train available in MODE 4 in accordance with WCAP-16294-NP-A, Rev. 1, may be included in this Bases or a reference to the location of this requirement (e.g., a specific location in the Technical Requirements Manual, other licensee controlled document, or the implementing procedure may be included in this Bases." The proposed statements in the reviewer's note allow the licensee the option to place the requirement outside of the TS Bases, which is not consistent with the NRC's final safety evaluation. The NRC's final safety evaluation requires licensees requesting the TS changes to operate their plants in accordance with TR WCAP-16294-NP and must include in the TS Bases, the assurance of the Turbine Driven (TD) AFW pump availability while the plant remains in Mode 4.

The second concern is that the requirement is only being placed in the AFW system TS Bases and is not being placed in the TS Bases Actions section(s) for each modified required action. In order to utilize the Mode 4 endstate, a requirement must be established to maintain the TDAFW train available in MODE 4 and it is appropriate to place this requirement in the TS Bases Actions section(s) for each modified required action since it is applicable to each modified required action.

### **Request for Additional Information #1**

Explain how the proposed TS Bases in Traveler TSTF-432 meet Section 4.0, "Limitations and Conditions," items 1, 2 and 3 in the NRC staff's final safety evaluation for TR WCAP-16294-NP.

### **Response to Request for Additional Information #1:**

The Reviewer's Note to the Bases for Technical Specification 3.7.5, "AFW System," states:

"The additional requirement to maintain the TDAFW train available in MODE 4 in accordance with WCAP-16294-NP-A, Rev. 1, may be included in this Bases or a reference to the location of this requirement (e.g., a specific location in the Technical Requirements Manual, other licensee controlled document, or the implementing procedure may be included in this Bases.)"

The Reviewer's Note provides the option to either include the requirement to maintain the TDAFW train available in Mode 4 in the Bases, or a reference to the specific location of this requirement, if it is not included in the Bases. If the requirement is not included in the Bases, it is incorporated into the Bases by reference to the specific location. Therefore Limitation and Condition Item 2 of the NRC's Final Safety Evaluation is met.

When a unit shutdown is required by the Technical Specifications, the shutdown is performed in accordance with a procedure, independent of which Technical Specification required the shutdown. The Technical Specification Bases are not used by operations to perform the shutdown. The requirement to maintain the TDAFW train available in Mode 4 as discussed in the Bases for Technical Specification 3.7.5, will be included in the shutdown procedure, which is used for all Technical Specification required shutdowns. Therefore including the requirement in the Bases for each Required Action that is revised to a Mode 4 endstate is not required to provide sufficient information to operators on the requirement to maintain the TDAFW train available.

Additionally, if a sufficient steam supply is unavailable during the application of the Mode 4 end state, the unit's configuration risk management program will direct the appropriate actions to be taken. The risk impact is managed in accordance with the program in place that implements 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." Regulatory Guide 1.182 endorses the guidance in Section 11 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." This program will determine the safest course of action for an emergent condition in Mode 4 that renders the TDAFW train unavailable, and

could include proceeding to a Mode 5 endstate in the affected Specifications. A procedure would address this emergent condition, i.e., the unavailability of the TDAFW train in Mode 4, and identify the steps required to ensure long-term decay heat removal. Therefore Limitation and Condition Item 3 of the NRC's Final Safety Evaluation is met.

The duration that the unit is in Mode 4 will be limited to the time required to restore the inoperable equipment, that required the unit shutdown, to operable status. It should be noted that it may be required to exit Mode 4 to Mode 5, depending on the conditions required to repair and restore the inoperable equipment to operable status. The risk justification for remaining in Mode 4 was based on the availability of the TDAFW train, to avoid the transition risk associated with going from steam generator cooling to RHR cooling, which is why this requirement was included in the Bases for Technical Specification 3.7.5. Therefore remaining in Mode 4 for the time required to complete the repair to restore the inoperable equipment to operable status is acceptable, as long as the TDAFW train is available. If the TDAFW train becomes unavailable in Mode 4, the unit's configuration risk management program and procedures will direct the appropriate actions to be taken as discussed above. Therefore Limitation and Condition Item 1 of the NRC's Final Safety Evaluation is met.