

June 18, 2019

TSTF-19-07

Members of the PWROG and BWROG Licensing Committees

**SUBJECT:** Elimination of the Requirement to Adopt TSTF-493, "Clarify Application of Setpoint Methodology for LSSS Functions"

The TSTF recommends that members not propose adding the TSTF-493 footnotes to instrument functions in license amendment requests (LARs) to revise Allowable Values. If a member has made a commitment to adopt TSTF-493, the TSTF recommends that the commitment be changed.

### **TSTF-493 Development**

In 2002, the NRC issued a Request for Additional Information (RAI) regarding a Ginna Nuclear Power Plant LAR to revise Safety Limits and instrumentation setpoints. In 2002 and 2003, the NRC met with the International Society of Automation (ISA) 67.04 committee and the TSTF. The NRC was concerned that ISA S67.04.02, Method 3, did not provide sufficient margin between the analytical limit and the Technical Specifications (TS) Allowable Value. The ISA and the industry disagreed. In February 2004, the NRC staff concluded that the use of Method 3 does not raise significant generic concerns that would prevent the issuance of the amendments currently under review.

In late 2003, the NRC identified a secondary concern on the acceptable use of the TS Allowable Value to act as the Limiting Safety System Setting (LSSS) as required by 10 CFR 50.36(c)(1)(ii)(A). The NRC considered the LSSS issue to be separate from the technical concern with Method 3.

After extended negotiation, TSTF-493 was submitted in January 2006 to address the NRC's concern regarding the use of TS Allowable Values as LSSS. TSTF-493 added two footnotes<sup>1</sup> to the instrumentation tables in TS Section 3.3 that addressed treatment of as-found values and the setting of as-found and as-left tolerances. The traveler did not identify the instrument functions

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<sup>1</sup> The two footnotes are (1) If the as-found channel setpoint is outside its predefined as-found tolerance, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. (2) The instrument channel setpoint shall be reset to a value that is within the as-left tolerance around the Limiting Trip Setpoint (LTSP) at the completion of the surveillance; otherwise, the channel shall be declared inoperable. Setpoints more conservative than the LTSP are acceptable provided that the as-found and as-left tolerances apply to the actual setpoint implemented in the Surveillance procedures (Nominal Trip Setpoint) to confirm channel performance. The Limiting Trip Setpoint and the methodologies used to determine the as-found and the as-left tolerances are specified in [insert the facility FSAR reference or the name of any document incorporated into the facility FSAR by reference].

that were LSSS. A recurring issue during the review of TSTF-493 was the identification of those TS Section 3.3 Allowable Values that were considered LSSS.

In August 2006, the NRC published RIS 2006-17, "NRC Staff Position on The Requirements Of 10 CFR 50.36, 'Technical Specifications,' Regarding Limiting Safety System Settings During Periodic Testing and Calibration of Instrument Channels." The RIS discussed the setting of as-found and as-left tolerances and the scope of functions to be addressed.

TSTF-493, Revision 1, was submitted to the NRC in October 2006. Revision 1 identified the LSSS functions that were affected. Revision 2 was submitted in April 2007 and further defined the list of affected instrument functions. Revision 3 was submitted in January 2008 and revised the list of affected instrument functions.

On February 23, 2009, the TSTF sent a letter to the NRC, "Industry Plan to Resolve TSTF-493, 'Clarify Application of Setpoint Methodology for LSSS Functions'." It stated that in order to reach resolution with the NRC on TSTF-493, the industry agreed to add the TSTF-493 footnotes to all instrument functions (with specific exceptions) in the LCOs for the Reactor Trip System (also called Reactor Protection System), the Engineered Safety Feature Actuation System (also called Emergency Core Cooling System) and some instrument functions in other LCOs identified by the BWROG in TSTF-493, Revision 3. All discussion of LSSS selection criteria was to be removed from TSTF-493.

TSTF-493, Revision 4, was submitted in July 2009 consistent with the February letter and was approved in May 2010. It included an NRC-requested option being used by new nuclear plant designs (such as the AP1000) that relocated the Allowable Values to licensee control based on NRC approval of the licensee's setpoint methodology. Revision 4 included two versions of each instrumentation TS: The Option A version that included Allowable Values and the TSTF-493 footnotes, and the Option B version that did not include Allowable Values and added a Setpoint Control Program to the Administrative Controls section of the TS. The Setpoint Control Program contained requirements equivalent to the Option A footnotes.

#### **Licensee Commitments to Adopt TSTF-493, Revision 4**

In the February 2009 letter, the TSTF stated that a licensee may submit a license amendment request (LAR) to change one or more Allowable Values and to adopt the footnotes on all of the functions included in TSTF-493. Alternatively, a licensee could submit a LAR without any changes to Allowable Values and adopt the footnotes on all of the functions included in the travel.

In practice, few licensees submitted LARs to adopt the TSTF-493 footnotes on all applicable functions with or without a change to a TS Allowable Value. The majority of LARs proposed to adopt the TSTF-493 footnotes only on those functions whose Allowable Values were being revised. Some licensees made commitments to adopt the TSTF-493 footnotes on all of the affected functions sometime in the future.

### **Change in NRC Position Regarding TSTF-493, Revision 4**

In March 2015, the TSTF sent a letter to the NRC proposing modifications to the model application and model safety evaluation (SE) for TSTF-493, Revision 4, to address inconsistent application of the requirements during LAR reviews. The NRC stated that they would need several months to consider the proposal.

At the February 18, 2016 TSTF/NRC public meeting, a representative from the NRC's I&C Branch (Richard Stattel), speaking on behalf of the branch chief (David Rahn), stated that if a licensee did not propose to add the TSTF-493 footnotes in a LAR to revise Allowable Values, their practice is to not request that they be added as long as control of as-left and as-found tolerances is being addressed in plant procedures. The Instrumentation and Control branch staff believed it was an unwarranted backfit to require addition of the footnotes.

At least one licensee subsequently changed their commitment to adopt the TSTF-493 footnotes. See Arizona Public Service letter dated February 17, 2017, "Commitment Change Regarding Adoption of Technical Specifications Task Force Traveler 493, Revision 4, Clarify Application of Setpoint Methodology for LSSS Functions," ADAMS Accession No. ML17048A574. The NRC did not respond to the commitment change. A copy is attached.

In May 2019, Southern Nuclear Operating Company (SNC) received a draft Request for Additional Information regarding a license amendment for Hatch that referenced RIS 2006-17 and TSTF-493. It stated, "Please provide a summary to describe your approach to addressing the specific concerns expressed in the RIS, as they relate to the proposed changes in this LAR." In a teleconference to discuss the RAIs, SNC pointed out the NRC staff's statements at the February 2016 TSTF/NRC public meeting. After the call, the I&C Branch reviewer conferred with other I&C staff and confirmed with SNC that the branch's position had not changed since the 2016 meeting. The I&C branch will accept a licensee not proposing to adopt the TSTF-493 footnotes provided that they describe how the concerns in the RIS are addressed in plant procedures.

### **Recommendation**

The TSTF recommends that licensees not propose adding the TSTF-493 footnotes to instrument functions in LARs to revise Allowable Values. In the amendment request, licensees should describe how the methods used to calculate Allowable Values and to control as-found and as-left tolerances for the parameter of concern are consistent with RIS 2006-17.

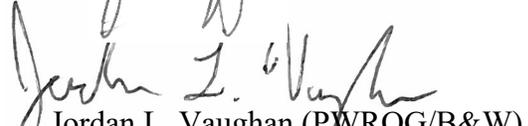
Some licensees have made commitments to the NRC to adopt TSTF-493. An example of a letter to the NRC that changed the commitment to maintaining similar practices in their plant procedures is attached. The TSTF recommends that other plants with commitments regarding TSTF-493 do the same.

Should you have any questions, please do not hesitate to contact us.

  
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Ryan M. Joyce (BWROG)

  
David M. Gullott (PWROG/W)

  
Jordan L. Vaughan (PWROG/B&W)

  
Wesley Sparkman (APOG)

**Attachment**

**Arizona Public Service Example Commitment Change Letter**



102-07426-MLL/TNW  
February 17, 2017

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

Reference: Arizona Public Service Company letter 102-07204, *Commitment Schedule Change Related to TSTF-493*, dated February 25, 2016 [Agencywide Documents Access and Management System (ADAMS) Accession No. ML16056A594]

Dear Sirs:

Subject: **Palo Verde Nuclear Generating Station (PVNGS)**  
**Units 1, 2, and 3**  
**Docket Nos. STN 50-528, 50-529, and 50-530**  
**Commitment Change Regarding Adoption of Technical Specifications**  
**Task Force Traveler 493, Revision 4, Clarify Application of Setpoint**  
**Methodology for LSSS Functions**

The purpose of this letter is to inform the Nuclear Regulatory Commission (NRC) that Arizona Public Service Company (APS) has revised a regulatory commitment for submitting a license amendment request (LAR) for a technical specification (TS) revision documented in the reference letter. The commitment change was performed in accordance with APS procedure 93DP-0LC08, *Regulatory Commitment Tracking*, which implements the guidance of NEI 99-04, *Guidelines for Managing NRC Commitment Changes*, which has been endorsed by the NRC staff in Regulatory Information Summary (RIS) 2000-17, *Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff*, dated September 21, 2000.

Revision 4 of Technical Specification Task Force (TSTF) Traveler 493, *Clarify Application of Setpoint Methodology for Limiting Safety System Settings (LSSS) Functions*, was approved by the NRC (75 FR 26294) on May 11, 2010. Option A of TSTF-493 applies notes to functions in the Reactor Protection System (RPS) and Engineered Safety Features Actuation System (ESFAS) specifications. The notes relate to as-found and as-left channel setpoints for the applicable surveillance requirements identified in TSTF-493.

The commitment identified in the reference letter reads as follows:

"APS shall submit a license amendment request based on Option A of TSTF-493, *Clarify Application of Setpoint Methodology for Limiting Safety System*

102-07426-MLL/TNW  
ATTN: Document Control Desk  
U. S. Nuclear Regulatory Commission  
Commitment Change Regarding TSTF-493, *Clarify Application of Setpoint Methodology for LSSS Functions*  
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*Settings*, by February 28, 2017. No changes to the allowable values or nominal trip setpoints will be requested in the submittal.”

After a review of TSTF-493, Revision 4, APS concludes that the current station surveillance testing procedures implement the notes of Option A of TSTF-493. Similar notes already exist for parameters in the PVNGS TS for the RPS and ESFAS instrumentation, which serve to anchor these practices in surveillance procedures. Specifically, steam generator 1 and 2 – low pressure, in RPS Tables 3.3.1-1 and 3.3.2-1 and ESFAS Table 3.3.5-1, and refueling water storage tank level – low, in ESFAS Table 3.3.5-1 contain similar notes.

APS will continue to implement these current practices to ensure the objectives of TSTF-493 are satisfied, obviating the need for submitting an LAR. The addition of the notes of TSTF-493 to the multitude of instruments in the RPS and ESFAS TS tables would be an administrative effort that complicates the TS tables, from a human factors perspective, with no change in plant operating practice.

The commitment has, therefore, been changed to read as follows:

“The practices described in the notes of TSTF-493, Option A, will be retained in PVNGS surveillance procedures.”

No new commitments are made by this letter. Should you have any questions concerning the content of this letter, please contact Michael DiLorenzo, Licensing Section Leader, at (623) 393-3495.

Sincerely,

Lacal, Maria  
L(Z06149)



Digitally signed by Lacal, Maria  
L(Z06149)  
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MLL/TNW/NTA

cc: K. M. Kennedy NRC Region IV Regional Administrator  
S. P. Lingam NRC NRR Project Manager for PVNGS  
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C. A. Peabody NRC Senior Resident Inspector for PVNGS  
T. Morales Arizona Radiation Regulatory Agency (ARRA)