TENNESSEE VALLEY AUTHORITY

TVA Fleet License Amendment Request to Adopt TSTF-596-A, Revision 2, "Expand the Applicability of the Surveillance Frequency Control Program (SFCP)," and TSTF-600-A, Revision 2, “Revise the Reactor Coolant System (RCS) Pressure Isolation Valve (PIV) Leakage Testing Frequency”

December 01, 2025

Agenda

- Introduction
- Background
- TSTF-596 and Key Variations
- TSTF-600 (WBN Only)
- TSTF-374-A and TSTF-118-A (WBN only)
- No Significant Hazards Considerations Analysis
- Schedule for Submittal

Introduction

- Tennessee Valley Authority (TVA) is submitting a license amendment request (LAR) for the Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68 for the Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3, Renewed Facility Operating License Nos. DPR-77 and DPR-79 for the Sequoyah Nuclear Plant (SQN), Units 1 and 2 and Facility Operating License Nos. NPF-90 and NPF-96 for the Watts Bar Nuclear Plant (WBN), Units 1 and 2, respectively.
- TVA requests adoption of TSTF-596-A, Revision 2, "Expand the Applicability of the Surveillance Frequency Control Program (SFCP)," for the BFN Units 1, 2, and 3 Technical Specifications (TS), SQN Units 1 and 2 TS, and the WBN Units 1 and 2 TS. TSTF-596-A expands the applicability of the Surveillance Frequency Control Program (SFCP) to include other periodic testing frequencies in the Technical Specifications (TS).

Introduction

- TSTF-596-A also revises the SFCP to reference additional regulatory mechanisms that may be used to control Surveillance Frequencies, such as 10 CFR 50.55a and 10 CFR 50.69. The proposed change revises Surveillance Requirements (SRs) that reference the Inservice Testing (IST) Program to instead reference the SFCP for BFN, SQN, and WBN.
- The proposed change also incorporates TSTF-374-A, Revision 0, “Revision to TS 5.5.13 and associated TS Bases for Diesel Fuel Oil,” TSTF-118-A, Revision 0, “Administrative Controls Program Exceptions,” and TSTF-600-A, Revision 2, “Revise the Reactor Coolant System (RCS) Pressure Isolation Valve (PIV) Leakage Testing Frequency,” for the WBN Units 1 and 2 TS.

Background

- TSTF-596-A was approved by the Nuclear Regulatory Commission (NRC) on December 30, 2024 (ML24362A054)
- TSTF-600-A was approved by the NRC on September 8, 2025 (ML25247A238)
- TSTFs 118 and 374 revise Westinghouse Standard TS (STS) 5.5.13, which is equivalent to WBN Units 1 and 2 TS 5.7.2.16.
- TSTF-118-A was approved by the NRC on March 13, 1997. The NRC did not issue a letter approving TSTF-118-A, however it was incorporated by the NRC into Revision 2 of the ISTS NUREGs.
- TSTF 374-A was approved by the NRC on May 17, 2006 (ML061040356), which included a model Safety Evaluation (SE) and a model application and noted that applications would be reviewed under the Consolidated Line Item Improvement Process (CLIIP).

TSTF-596 Key Variations Common to SQN and WBN

- TVA is proposing to revise SQN Units 1 and 2 and WBN Units 1 and 2 SR 3.4.14.1 Frequency from “In accordance with the Inservice Testing Program” to “In accordance with the Surveillance Frequency Control Program.”
- NRC License Amendments 370 and 364 for SQN Units 1 and 2, respectively (ML25027A314 dated March 6, 2025), revised the Frequency of SQN Units 1 and 2 SR 3.4.14.1 to be solely in accordance with the Inservice Testing Program and deleted the condition based frequencies and reference to the SFCP. This is consistent with TSTF-600-A, Revision 2, which revises Westinghouse STS SR 3.4.14.1 to be solely in accordance with the Inservice Testing Program.
- TSTF-596-A revises Westinghouse STS SR 3.4.14.1 to eliminate the reference to the IST Program and retain the reference to the SFCP and the other condition based frequencies.

TSTF-596 Key Variations Common to SQN and WBN

- As noted in TSTF-600-A Section 2.4, “Description of the Proposed Change:”

  Plants that have adopted TSTF-596, Revision 2, "Expand the Applicability of the Surveillance Frequency Control Program (SFCP)," (ADAMS Accession No. ML24362A054) will use a Frequency of "In accordance with the Surveillance Frequency Control Program." Under TSTF-596, references to the Inservice Testing Program are replaced with references to the SFCP. The TS Section 5.5, "Surveillance Frequency Control Program," references 10 CFR 50.55a(f) (the Inservice Testing Program) for the applicable SRs, such as the RCS PIV SR. This is an administrative difference that does not affect the justification for TSTF-600.

SQN SR 3.4.14.1

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.4.14.1	----------NOTE---------- Not required to be performed in MODES 3 and 4. ---------- Verify leakage from each RCS PIV is equivalent to ≤ 0.5 gpm per nominal inch of valve size up to a maximum of 5 gpm at an RCS pressure ≥ 2215 psig and ≤ 2255 psig.	In accordance with the ~~Inservice Testing Program~~Surveillance Frequency Control Pogram

WBN SR 3.4.14.1

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.14.1	----------NOTE---------- ~~1.~~ Not required to be performed in MODES 3 and 4. ~~2. Not required to be performed on the RCS PIVs located in the RHR flow path when in the shutdown cooling mode of operation.~~ ~~3. RCS PIVs actuated during the performance of this Surveillance are not required to be tested more than once if a repetitive testing loop cannot be avoided.~~ ----------	
	Verify leakage from each RCS PIV is equivalent to ≤ 0.5 gpm per nominal inch of valve size up to a maximum of 5 gpm at an RCS pressure ≥ 2215 psig and ≤ 2255 psig.	In accordance with the ~~Inservice Testing Program, and in accordance with the~~ Surveillance Frequency Control Program ~~AND~~ ~~Prior to entering MODE 2 whenever the unit has been in MODE 5 for 7 days or more, if leakage testing has not been performed in the previous 9 months~~ ~~AND~~ ~~Within 24 hours following valve actuation due to automatic or manual action or flow through the valve~~

TENNESSEE VALLEY AUTHORITY

TSTF-596 Key Variations Common to SQN and WBN

- The SQN and WBN TS do not include the changes in TSTF-545. As a result, the SQN and WBN TS include a TS Section 5.5.6 (SQN) and 5.7.2.11 (WBN), "Inservice Testing Program," and do not include a defined term, "INSERVICE TESTING PROGRAM." As discussed in TSTF-596-A, the proposed change removes TS Section 5.5, "Inservice Testing Program," in addition to making the other changes described in the traveler. Furthermore, Section 3.6 of TSTF-596-A states “Licensees that have not adopted TSTF-545 may adopt the proposed traveler and delete the TS Section 5.5, ‘Inservice Testing Program’ without adding the defined term, ‘INSERVICE TESTING PROGRAM,’ that is eliminated by this traveler.”

TSTF-596 Key Variations Common to SQN and WBN

- Therefore, SQN TS 5.5.6 and WBN TS 5.7.2.11, “Inservice Testing Program,” are being deleted consistent with the Westinghouse STS and TSTF-545, Revision 3. However, the titles of SQN TS 5.5.6 and WBN TS 5.7.2.11 are being revised to state “Inservice Testing Program (see Section 5.5.17),” and “Inservice Testing Program (see Section 5.7.2.23),” respectively, in order to avoid the numerous procedure changes with the STS revision. Additionally, the definition of the IST program is being added to SQN Units 1 and 2 TS 5.5.6 and WBN Units 1 and 2 TS 5.7.2.11 for consistency with BFN TS 1.1. Furthermore, the verbiage that SR 3.0.3 is applicable to inservice testing activities is being retained in SQN Units 1 and 2 TS 5.5.6 and WBN Units 1 and 2 TS 5.7.2.11.

SQN TS 5.5.6

5.5.6 Inservice Testing Program (see Section 5.5.17)

The Inservice Testing Program is the licensee program that fulfills the requirements of 10 CFR 50.55a(f). The provisions of SR 3.0.3 are applicable to inservice testing activities.

WBN TS 5.7.2.11

5.7.2.11 Inservice Testing Program (see Section 5.7.2.23)

The Inservice Testing Program is the licensee program that fulfills the requirements of 10 CFR 50.55a(f). The provisions of SR 3.0.3 are applicable to inservice testing activities.

TSTF-596 Key Variations Common to BFN, SQN and WBN

- TSTF-596-A revises TS 5.5.16, “Surveillance Frequency Control Program,” of the BWR/4 STS, which is numbered as TS 5.5.15 in the BFN TS. TSTF-596-A also revises Westinghouse STS 5.5.19, “Surveillance Frequency Control Program,” which is numbered as TS 5.5.17 in the SQN Units 1 and 2 TS and TS 5.7.2.23 in the WBN Units 1 and 2 TS. These are non-technical variations to the traveler. TVA is also revising BFN TS 5.5.15, SQN Units 1 and 2 TS 5.5.17, and WBN Units 1 and 2 TS 5.7.2.23 as follows:
- The verbiage in BFN TS 5.5.15.a, SQN Units 1 and 2 TS 5.5.17.a, and WBN Units 1 and 2 TS 5.7.2.23.a is revised as follows (changes indicated in bold italics):

  “The Surveillance Frequency Control Program shall contain a list of Frequencies controlled by the programs ***that govern the activities listed in items b.1, b.2, and b.3****.”*
- Item b.1 refers to the IST program by 10 CFR 50.55a(f), item b.2 refers to 10 CFR 50.69(d)(2) for testing permitted under 10 CFR 50.69(b)(1)(v); and item b.3 refers to the SFCP frequencies that are in accordance with NEI 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.

TSTF-596 Key Variations Common to BFN, SQN and WBN (BFN TS 5.5.15.a, SQN TS 5.5.17.a, WBN TS 5.7.2.23.a)

Surveillance Frequency Control Program

This program provides controls for Surveillance Frequencies and the frequencies of other periodic testing required by these Technical Specifications (herein also referred to as Surveillance Frequencies). The program shall ensure that Surveillance Requirements and other required testing specified in these Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operation and other requirements are met.

a. The Surveillance Frequency Control Program shall contain a list of Frequencies ~~of those Surveillance Requirements for which the Frequency is~~ controlled by the programs that govern the activities listed in items b.1, b.2, and b.3.

TSTF-596 Key Variations Common to BFN, SQN and WBN

- The proposed change to BFN TS 5.5.15.a, SQN Units 1 and 2 TS 5.5.17.a, and WBN Units 1 and 2 TS 5.7.2.23.a, as shown on the previous page, is to ensure that the SFCP program is not required to include a list of the IST program frequencies that are TS related. The implementing SFCP procedures will have to list each SR that references the SFCP, but for those SRs that are in scope of the IST program, the implementing SFCP procedures can simply reference the IST Program procedure number and not list all of the associated IST Program frequencies. The same rationale applies to the SFCP frequencies that are controlled by 10 CFR 50.69(d)(2) for testing permitted under 10 CFR 50.69(b)(1)(v) (i.e., the SFCP would refer to the implementing program for those activities).

TSTF-596 Key Variations Common to BFN, SQN and WBN

- BFN TS 5.5.15.b.1, SQN Units 1 and 2 TS 5.5.17.b.1, and WBN Units 1 and 2 TS 5.7.2.23.b.1 are being slightly revised to state (as shown in bold italics): “In accordance with the requirements for ***the inservice testing program*** required by 10 CFR 50.55a(f).” This change is to clearly identify that this TS requirement applies to the IST program governed by 10 CFR 50.55a(f).
- BFN TS 5.5.15.b.2, SQN Units 1 and 2 TS 5.5.17.b.2, and WBN Units 1 and 2 TS 5.7.2.23.b.2 are being slightly revised to remove the reference to the inservice testing program required by 10 CFR 50.55a(f), because the changes to the SFCP, in accordance with 10 CFR 50.55a(f), is addressed in the above proposed revision to BFN TS 5.5.15.b.1, SQN Units 1 and 2 TS 5.5.17.b.1, and WBN Units 1 and 2 TS 5.7.2.23.b.1.

TSTF-596 Key Variations Common to BFN, SQN and WBN (BFN TS 5.5.15.b, SQN TS 5.5.17.b, WBN TS 5.7.2.23.b)

b. Changes to the Frequencies listed in the Surveillance Frequency Control Program shall be made:-

1. In accordance with the requirements of 10 CFR 50.55a for the inservice testing program required by 10 CFR 50.55a(f);
2. In accordance with the requirements of 10 CFR 50.69(d)(2) for testing permitted under 10 CFR 50.69(b)(1)(v) ~~in lieu of testing required by 10 CFR 50.55a(f);~~
3. Otherwise, in accordance with NEI 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.

TSTF-596 Key Variations Common to BFN, SQN and WBN

- TSTF-596-A adds new BWR/4 STS 5.5.16.c.1 and Westinghouse STS 5.5.19.c.1, which states: “For testing required by 10 CFR 50.55a(f), Surveillance Requirement 3.0.2 is only applicable as permitted by that regulation.”
- The regulations in 10 CFR 50.55a(f) require that inservice testing be performed in accordance with American Society of Mechanical Engineers (ASME) Operation and Maintenance of Nuclear Power Plants (OM Code). OM Code Section ISTA-3170, “Inservice Examination and Test Frequency Grace,” allows test frequencies to be extended similar to the requirements of SR 3.0.2.
- Therefore, because the ASME OM Code reflects the requirements of BWR/4 STS 5.5.16.c.1 and Westinghouse STS 5.5.19.c.1, TVA is not incorporating this change in BFN TS 5.5.15, SQN Units 1 and 2 TS 5.5.17, and WBN Units 1 and 2 TS 5.7.2.23. Accordingly, proposed BWR/4 STS 5.5.16.c.2 and Westinghouse STS 5.5.19.c.2, which addresses SR 3.0.3, are being merged with the text of BFN TS 5.5.15.c, SQN Units 1 and 2 TS 5.5.17.c, and WBN Units 1 and 2 TS 5.7.2.23.c.

TSTF-596 Key Variations Common to BFN, SQN and WBN (BFN TS 5.5.15.c, SQN TS 5.5.17.c, WBN TS 5.7.2.23.c)

c. The provisions of Surveillance Requirements 3.0.2 and 3.0.3 are applicable to the Frequencies established in the Surveillance Frequency Control Program, **except:**

~~1. For testing required by 10 CFR 50.55a(f), Surveillance Requirement 3.0.2 is only applicable as permitted by that regulation; and~~

~~2.~~ **Surveillance Requirement 3.0.3 is only applicable to other required testing when invoked by a Chapter 5 Specification.**]

Revised BFN TS 5.5.15.d

- BFN TS 5.5.15.d is being added to state: “The provisions of SR 3.0.3 are applicable to inservice testing activities.” These provisions were previously in the BWR/4 STS Chapter 5 for the Inservice Testing Program that was deleted in TSTF-545. The proposed changes provide assurance that the provisions of SRs 3.0.2 and 3.0.3 will remain applicable to the BFN IST program. Similar changes are not needed to SQN Units 1 and 2 TS 5.5.17, and WBN Units 1 and 2 TS 5.7.2.23 because TVA is retaining similar verbiage regarding SR 3.0.3 in the SQN and WBN Chapter 5 TS for the IST program (i.e., SQN Units 1 and 2 TS 5.5.6 and WBN Units 1 and 2 TS 5.7.2.11).

Revised BFN TS 5.5.15, SQN TS 5.5.17, and WBN TS 5.7.2.23 (variations highlighted in yellow)

Surveillance Frequency Control Program

This program provides controls for Surveillance Frequencies and the frequencies of other periodic testing required by these Technical Specifications (herein also referred to as Surveillance Frequencies). The program shall ensure that Surveillance Requirements and other required testing specified in the Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operation and other requirements are met.

a. The Surveillance Frequency Control Program shall contain a list of Frequencies ~~of those Surveillance Requirements for which the Frequency is~~ controlled by the programs that govern the activities listed in items b.1, b.2, and b.3.

b. Changes to the Frequencies listed in the Surveillance Frequency Control Program shall be made:

   1. In accordance with the requirements of 10 CFR 50.55a for the inservice testing program required by 10 CFR 50.55a(f);
   2. In accordance with the requirements of 10 CFR 50.69(d)(2) for testing permitted under 10 CFR 50.69(b)(1)(v);
   3. Otherwise, in accordance with NEI 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.

c. The provisions of Surveillance Requirements 3.0.2 and 3.0.3 are applicable to the Frequencies established in the Surveillance Frequency Control Program, except Surveillance Requirement 3.0.3 is only applicable to other required testing when invoked by a Chapter 5 Specification.

d. The provisions of SR 3.0.3 are applicable to inservice testing activities.

BFN only

TENNESSEE VALLEY AUTHORITY

Additional TSTF-596 Key Variations for BFN

- TSTF-596-A deletes, in its entirety, the NUREG-1433 BWR/4 STS 1.1 Definition for the IST Program. In order to avoid the numerous procedure changes with the STS revision and avoid any potential misunderstandings regarding the TS requirements for the IST program, TVA is electing to retain the TS 1.1 Definition for the BFN Units 1, 2 and 3 IST program and adding a reference to TS 5.5.15 (i.e., the SFCP) (see below TS markup). In accordance with TSTF-596-A, BFN Units 1, 2 and 3 TS 5.5.15 is being revised to include the IST Program per 10 CFR 50.55a.

INSERVICE TESTING PROGRAM	The INSERVICE TESTING PROGRAM is the licensee program that fulfills the requirements of 10 CFR 50.55a(f). (see Section 5.5.15)

Additional TSTF-596 Key Variations for BFN

- BFN TS 5.5.6, “Inservice Testing Program,” currently states “Note: See Section 1.1 for the definition of INSERVICE TESTING PROGRAM,” which was added when BFN adopted TSTF-545, "TS Inservice Testing Program Removal & Clarify SR Usage Rule Application to Section 5.5 Testing" (ML17277A207). BFN TS 5.5.6 is being deleted consistent with the BWR/4 STS and TSTF 545, Revision 3, “TS Inservice Testing Program Removal & Clarify SR Usage Rule Application to Section 5.5 Testing.” As previously noted, the BFN TS 1.1 Definition for the IST program is being revised to add a reference to BFN TS 5.5.15 (i.e., the SFCP).

5.5.6 Deleted

~~Note: See Section 1.1 for the definition of INSERVICE TESTING PROGRAM.~~

Additional TSTF-596 Key Variations for BFN

- The revisions to BFN SRs 3.4.3.1 and 3.4.3.2 and the Bases for TS 3.4.3 reflect the changes approved by the NRC in BFN Units 1, 2 and 3 License Amendments 335, 358, and 318 (ML25093A254), respectively, which incorporated TSTF-576-A, Revision 3, “Revise Safety/Relief Valve Requirements.” The STS markup of TSTF-576-A is not reflected in the TSTF-596-A markup. Notwithstanding this change is consistent with the intent of TSTF-596-A.

BFN TS SRs 3.4.3.1 and 3.4.3.2

OPS
3.4.3

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.3.1	Verify the as-left OPS lift pressures of the required safety/relief valves (S/RVs) are within ± 1% of the nominal setpoint as follows: Number of OPS S/RVs: 4, 4, 5 Nominal Setpoint (psig): 1135, 1145, 1155	In accordance with the ~~INSERVICE TESTING PROGRAM~~ Surveillance Frequency Control Program TSTF-576
SR 3.4.3.2	Verify the as-found OPS lift pressures of the required S/RVs are within the limits specified in the COLR.	In accordance with the ~~INSERVICE TESTING PROGRAM~~ Surveillance Frequency Control Program

Additional TSTF-596 Key Variations for BFN

- BFN SR 3.5.1.11, “ECCS – Operating,” currently states “Verify each ADS valve is capable of being opened in accordance with the INSERVICE TESTING PROGRAM,” and the Frequency is “In accordance with the INSERVICE TESTING PROGRAM.” This SR does not exist in the BWR/4 STS. TVA is revising SR 3.5.1.1 to state “Verify each ADS valve is capable of being opened in accordance with the requirements of 10 CFR 50.55a(f),” and the Frequency of the SR to “In accordance with the Surveillance Frequency Control Program.” These changes are consistent with the intent of TSTF-596-A.

BFN TS SR 3.5.1.11

SR 3.5.1.11	----------NOTE---------- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. ---------- Verify each ADS valve is capable of being opened in accordance with the ~~INSERVICE TESTING PROGRAM~~ requirements of 10 CFR 50.55a(f). OR Verify each ADS valve opens when manually actuated.	In accordance with the ~~INSERVICE TESTING PROGRAM~~ Surveillance Frequency Control Program

Additional TSTF-596 Key Variations for BFN

- The BFN TS contains an SR that references the IST Program in the Surveillance or the Frequency that does not appear in the STS on which TSTF-596-A was based. Specifically, BFN SR 3.6.1.6.2, "Suppression Chamber-to-Drywell Vacuum Breakers," which states "Perform a functional test of each required vacuum breaker," has a Frequency of "In accordance with the INSERVICE TESTING PROGRAM." TVA is revising this Frequency to state "In accordance with the Surveillance Frequency Control Program," consistent with the intent of TSTF-596-A and the BWR/4 STS.

SR 3.6.1.6.2	Perform a functional test of each required vacuum breaker.	In accordance with the ~~INSERVICE TESTING PROGRAM~~ Surveillance Frequency Control Program

TSTF-600 (WBN only)

As required by TSTF-600:

- TVA confirms that the RCS PIVs required to be tested by the WBN Units 1 and 2 TS and are included in the WBN Units 1 and 2 IST Program.
- TVA confirms that an Intersystem Loss-of-Coolant Accident (ISLOCA) is not a risk significant contributor to core damage or large early release in the plant's probabilistic risk assessment evaluation, and that the event-driven and 9-month Frequency RCS PIV testing is not necessary to ensure the risk associated with an ISLOCA is acceptable.
- TVA confirms that the RCS PIV leakage testing Frequencies proposed to be removed from the WBN Units 1 and 2 TS are not credited for satisfying any other requirements described in the Updated Final Safety Analysis Report or any commitments for reasons other than being a TS requirement.

TSTF-374-A and TSTF-118-A (WBN only)

- In addition to the changes in accordance with TSTF-596-A, TVA is also revising WBN Units 1 and 2 TS 5.7.2.16, “Diesel Fuel Oil Testing Program,” to incorporate the changes in TSTF-374 A, “Revision to TS 5.5.13 and associated TS Bases for Diesel Fuel Oil,” and TSTF 118-A, “Administrative Controls Program Exceptions.” TSTF 374-A modifies Westinghouse STS 5.5.13 (currently Westinghouse STS 5.5.12) by relocating references to specific American Society for Testing and Materials (ASTM) standards for fuel oil testing to licensee-controlled documents and adding alternate criteria to the “clear and bright” acceptance test for new fuel oil.

TSTF-374-A and TSTF-118-A (WBN only)

- The proposed license amendment also adopts TSTF-118-A, Revision 0, which adds the provisions of SR 3.0.2 and SR 3.0.3 to the Diesel Fuel Oil Testing Program testing frequencies. TSTF 118-A, Revision 0, in part, revises current Westinghouse STS 5.5.12 to add that the provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Diesel Fuel Oil Testing Program testing frequencies.

Key Variations from TSTF-374-A and TSTF-118-A (WBN only)

- TSTF-374-A deletes the phrase “in accordance with ASTM D-2276, Method A-2 or A 3.” (Note TSTF-596 allows the frequency of Westinghouse STS 5.5.12 to be in accordance with the SFCP). TSTF-374-A also revises various ASTM standards in the Bases for STS SR 3.8.3.3 with the year of the standards bracket (i.e., plant specific values). The years of the ASTM Standards that are being added to the WBN Units 1 and 2 Bases SR 3.8.3.3 are either in existing plant procedures or will be added as part of the implementation of this license amendment.

Key Variations from TSTF-374-A and TSTF-118-A (WBN only)

- TSTF-374-A revises STS Bases SR 3.8.3 to replace the reference to ASTM D2276 with ASTM D5452. As noted in the NRC review of the Sequoyah Nuclear Plant Improved TS conversion (ML13330A922, Enclosure 2, Volume 16, Rev. 0, Page 140 of 270):

  > *Regulatory Guide 1.137, Revision 2, "Fuel Oil Systems for Emergency Power Supplies," describes methods that the NRC considers acceptable for use in complying with the NRC requirements regarding fuel oil systems. Based on the guidance of Regulatory Guide 1.137 ANSI/ANS-59.51 to ANSI/ASTM D2276-94 for manual sampling of the stored fuel should be changed to ASTM D6217-11. This change is acceptable because testing of total particulate concentration of the fuel oil will be done in accordance with the approved NRC method of ASTM D6217-11. This change is designated as administrative because it does not result in a technical change to the CTS.*

- Accordingly, TVA is replacing the reference to ASTM D2276 with ASTM D6217 for WBN.

Revised WBN TS 5.7.2.16

5.7.2.16 Diesel Fuel Oil Testing Program

A diesel fuel oil testing program to implement required testing of both new fuel oil and stored fuel oil shall be established. The program shall include sampling and testing requirements, and acceptance criteria, all in accordance with applicable ASTM Standards. The purpose of the program is to establish the following:

a. Acceptability of new fuel oil for use prior to addition to the 7 day storage tanks by determining that the fuel oil has:

1. an API gravity or an absolute specific gravity within limits,

2. a flash point and kinematics viscosity within limits for ASTM 2D fuel oil, and

3. a clear and bright appearance with proper color or a water and sediment content within limits;

TSTF-374

Revised WBN TS 5.7.2.16

5.7.2.16 Diesel Fuel Oil Testing Program (continued)

b. Other properties for ASTM 2D fuel oil are within limits within 31 days following sampling and addition to the 7 day storage tanks; and

c. Total particulate concentration of the fuel oil in each of the four interconnected tanks which constitute a 7 day storage tank is ≤ 10 mg/l when tested at a Frequency in accordance with the Surveillance Frequency Control Program ~~every 31 days in accordance with ASTM D 2276, Method A 2 or A 3~~.

TSTF-118

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Diesel Fuel Oil Testing Program test frequencies.

TSTF-374

No Significant Hazards Considerations (NSHC) Analysis

- To assist NRC in their development of their Safety Evaluation, the LAR will contain separate NSHC Analyses for TSTFs-118, 374, 596, and 600.

Schedule for Submittal

- TVA plans to submit license amendment request to NRC by January 30, 2026.
- Request NRC approval within 6 months from the date of the NRC's acceptance review.
- LAR to be implemented within 6 months of NRC approval.


TVA
TENNESSEE
VALLEY
AUTHORITY