

DRAFT SECOND ROUND REQUEST FOR ADDITIONAL INFORMATION

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

WATTS BAR NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-390 AND 50-391

TECHNICAL SPECIFICATION 3.3.2-1, FUNCTION 5

Introduction:

By letter dated December 18, 2023 (Agencywide Documents Access and Management System Accession No. ML23352A298), as supplemented by letter dated August 19, 2024 (ML24232A071), the Tennessee Valley Authority (TVA) submitted a license amendment requests (LAR) for the Sequoyah Nuclear Plant (Sequoyah), Units 1 and 2, and the Watts Bar Nuclear Plant (Watts Bar), Units 1 and 2. Specifically, the proposed amendments would revise Sequoyah and Watts Bar Technical Specification (TS) Table 3.3.2-1, "Engineered Safety Feature Actuation System Instrumentation," by adding a note to Functions 5.a and 5.b related to the turbine trip function. The amendments for Watts Bar, Units 1 and 2, would also revise note (f) of Watts Bar, Unit 1, TS Table 3.3.2-1 and note (h) of Watts Bar, Unit 2, TS Table 3.3.2-1 to be consistent with the corresponding note in Sequoyah, Units 1 and 2, TS Table 3.3.2-1.

The U.S. Nuclear Regulatory Commission (NRC or Commission) is reviewing the LAR and had previously identified an area where additional information was needed to complete its review. The NRC staff transmitted a request for additional information (RAI) by email dated November 1, 2024 (ML24309A055). TVA responded by letter dated November 27, 2024 (ML24332A140).

The NRC staff has reviewed TVA's response to the RAI and determined that the response did not fully address the proposed change of wording regarding the "associated bypass valves" for Notes (f) and (h) to Watts Bar TS Table 3.3.2-1. Therefore, additional information is needed.

Regulatory Basis:

The Commission's regulatory requirements related to the content of TSs are set forth in Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.36, "Technical Specifications," which require, in pertinent part, that the TSs include: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls.

NUREG-1431¹, contains improved Standard Technical Specifications (STS) for Westinghouse plants. The NUREG encourages licensees to upgrade their TSs consistent with those criteria and conforming, to the practical extent, to Revision 5 of the improved STS.

In the STS for Westinghouse plants (i.e., NUREG-1431), for note k to Table 3.3.2-1, it states:

(k) Except when all MFIVs, MFRVs, [and associated bypass valves] are closed and [de-activated] [or isolated by a closed manual valve].

As noted in TSTF-GG-05-01, "Writer's Guide for Plant-Specific Improved Technical Specifications," brackets are typically used in the generic TSs and Bases to indicate where plant-specific input is needed. Bracketed values or requirements in STS are those that are based on plant-specific design, analysis, or licensing basis.

Technical Basis:

TVA is requesting the removal of the words "associated bypass valves" and "and deactivated," and the addition of the words, "MFRV bypass valves," and stated in the LAR that the proposed changes are administrative in nature in that they are consistent with Note (i) of Sequoyah Units 1 and 2, TS Table 3.3.2-1, Functions 5.a and 5.b. Additionally, TVA stated that the proposed changes to the Watts Bar TSs do not change the technical content of Note (f) and Note (h). However, TVA did not provide a plant-specific reason for the changes.

Watts Bar Dual-Unit Updated Final Safety Analysis Report (UFSAR) Figure 10.4-8 (ML23346A225) shows the main feedwater isolation valves (MFIVs) and main feedwater regulator valves (MFRVs) on the 16-inch main feedwater line, and the MFIV bypass and MFRV bypass valves on the 6-inch startup flow feedwater line. The NRC staff noted that the feedwater configuration at Watts Bar is not "consistent" with the feedwater configuration at Sequoyah.

The NRC staff also noted that TS Table 3.3.2-1, Notes (f) and (h) for Watts Bar Units 1 and 2, respectively, apply to the main steam valve vault rooms level switches for level high. According to the Watts Bar TS Bases for TS 3.7.3 (ML23312A013), the MFIVs and bypass MFIVs are in the main steam valve vault close to containment.

Request:

In the RAI response, TVA stated that the "associated bypass valves and MFRV bypass valves are synonymous with each other" (ML24332A140). However, no further explanation was provided.

Currently, Note (f) of Watts Bar, Unit 1, TS Table 3.3.2-1 and Note (h) of Watts Bar, Unit 2, TS Table 3.3.2-1 state:

Except when all MFIVs, MFRVs, and associated bypass valves are closed and de-activated or isolated by a closed manual valve.

¹ U.S. Nuclear Regulatory Commission, "Standard Technical Specifications, Westinghouse Plants," NUREG-1431, Volume 1, "Specifications," and Volume 2, "Bases," Revision 5, September 2021 (ML21259A155 and ML21259A159, respectively).

The proposed changes revise this Note as follows:

Except when all MFIVs, MFRVs, and ~~MFRV associated~~ bypass valves are closed ~~and de-activated~~ or isolated by a closed manual valve.

The Bases for Watts Bar TS 3.7.3 state that closure of the MFIVs and associated bypass valves or MFRVs and associated bypass valves terminates flow to the steam generators (emphasis added by underline).

Based on the above, it is the NRC staff's understanding that the current notes include the 16" MFW line MFIV (e.g., FCV 3-87) and associated bypass valves (6" MFW Bypass line MFIVs (e.g., FCV 3-242)) and the 16" MFW line MFRV (e.g., FCV 3-90) and associated bypass valves (6" MFW Bypass line MFRVs (e.g., FCV 3-90A)). This also aligns with the TS 3.7.3 Bases for the Limiting Condition for Operation.

The proposed changes to the notes delete "associated bypass valves" and replace it with "MFRV bypass valves." It is the NRC staff's understanding that the proposed notes would include the 16" MFW line MFIV (e.g., FCV 3-87), 16" MFW line MFRV (e.g., FCV 3-90), and the 6" MFRV bypass valve (e.g., FCV 3-90A), but would not include the 6" MFW Bypass line MFIVs (e.g., FCV 3-242).

Because the proposed notes would no longer include the 6" MFW Bypass line MFIVs (e.g., FCV 3-242), it appears that the MFIV bypass valves are not required to be closed for the purpose of the exception to the applicability of Functions 5.a, 5.b, 5.d, and 5.e. If this would be the case, the NRC staff would consider it to be a relaxation to the applicability of the notes.

Explain why the proposed Notes (f) and (h) do not need to include the MFIV bypass valves.