

**From:** Green, Kimberly  
**Sent:** Wednesday, August 24, 2022 2:26 PM  
**To:** Eckermann, Jeremy Beau  
**Subject:** Browns Ferry TSTF-505 Audit Questions - Part 2 (EPID L-2022-LLA-0049)  
**Attachments:** BFN TSTF-505 Audit Questions Part 2.docx

Beau,

The June 14, 2022, Audit Plan (ML22147A137) states that “[t]hroughout the audit period, the NRC staff will submit audit questions and audit-related requests to TVA so that TVA can better prepare for audit discussions with NRC staff.” Attached is the second set of NRC staff audit questions.

We look forward to discussing these questions and TVA’s responses during the virtual audit meeting that is currently scheduled to take place during the week of September 12, 2022. Please contact me at any time prior if a clarification discussion is needed.

Please post the responses for the questions to the Certrec Portal as the response is completed.

Let me know if you have any questions.

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**AUDIT QUESTIONS  
LICENSE AMENDMENT REQUEST  
TO REVISE TECHNICAL SPECIFICATIONS  
TO ADOPT TSTF-505, REVISION 2  
TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT UNITS 1, 2, AND 3  
DOCKET NOS. 50-259, 50-260, AND 50-296**

Tennessee Valley Authority (TVA) submitted a license amendment request (LAR) for Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3.<sup>1</sup> The amendments would revise certain technical specifications to permit the use of a risk-informed completion time (RICT) for actions to be taken when a limiting condition for operation is not met. The proposed changes to implement RICT are based on a Technical Specifications Task Force (TSTF) Traveler, TSTF-505, Revision 2, "Provide Risk-Informed Extended Completion Times."<sup>2</sup> The LAR also proposed to implement TSTF-439, "Eliminate Second Completion Times Limiting Time From Discovery of Failure To Meet an LCO."<sup>3</sup>

The NRC staff will audit TVA's records that support these requests. Please address the following questions during the audit.

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- <sup>1</sup> Polickoski, J.T., TVA, letter to the NRC, "License Amendment Request to Revise Technical Specifications to Adopt Risk-Informed Completion Times" dated March 31, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22090A287).
  - <sup>2</sup> TSTF-505, Revision 2, "Provide Risk-Informed Extended Completion Times – RITSTF Initiative 4b," dated July 2, 2018 (ML18183A493)
  - <sup>3</sup> TSTF-439, Revision 2, "Eliminate Second Completion Times Limiting Time From Discovery of Failure To Meet an LCO," dated June 20, 2005, which has been incorporated in standard technical specifications (NUREG-1433, "Standard Technical Specifications—General Electric Plants (BWR/4)," Revision 5, September 2021 (ML21272A357).

### **Audit Questions from Electrical Engineering Branch (EEEB)**

#### **Question 13 (EEEB) – "Other Comments"**

Table E1-1 of Enclosure 1 to the LAR lists the TS LCO Conditions to which the RICT Program is proposed to be applied and documents the certain information regarding the TSs with the associated safety analyses, the analogous PRA functions, and the results of the comparison.<sup>1</sup>

##### TS Condition 3.3.8.1.A

The TS Condition states: "One degraded voltage relay channel inoperable on one or more shutdown board(s). AND The loss of voltage relay channels on the affected shutdown board(s) are OPERABLE."

Under the column "Other Comments" it states, "Not explicitly modeled. Undervoltage DG start relays are used as surrogates. This is conservative because one of the two diesel start signals are failed."

Provide an explanation of “Other Comments,” preferably with an example, considering that the TS Condition description applies to one or more shutdown board(s).

**Question 14 (EEEB) – Availability of Temporary DGs**

TS Condition 3.8.1.B (U1 & U2) and TS 3.8.1.B (U3)

The TS Conditions state, “One required Unit 1 and 2 DG inoperable,” or “One required Unit 3 DG inoperable.”

The current Competition Time varies from 7 days to 14 days depending on the availability of Temporary/Supplemental DGs (TDG).

Clarify whether credit of availability of TDG(s) is or will be considered in the calculation of RICT of DGs.

**Question 15 (EEEB) – AC and DC Boards**

Unit 1 TS 3.8.7 Condition G requires: Unit 2 and 3 AC and DC Boards needed to support equipment required to be OPERABLE by LCO 3.6.4.3, “Standby Gas Treatment (SGT) System,” and LCO 3.7.3, “Control Room Emergency Ventilation (CREV) System.”

Provide a list of the Unit 2 and 3 AC and DC Boards required to be operable per Condition G above and provide a discussion of the PRA modelling of those boards for Unit 1. If the loads of the SGT and CREV systems are fed from downstream panels, please show/describe their connections from upstream boards.

**Question 16 (EEEB) – AC and DC Boards**

Unit 2 TS 3.8.7 Condition G requires: Unit 1 and 3 AC and DC Boards needed to support equipment required to be OPERABLE by LCO 3.6.4.3, “Standby Gas Treatment (SGT) System,” and LCO 3.7.3, “Control Room Emergency Ventilation (CREV) System.”

Provide similar information as in case of Question 15 above, applicable for Unit 2.

**Question 17 (EEEB) – AC and DC Boards**

Unit 3 TS 3.8.7, Condition G requires: Unit 1 and 2 AC and DC Boards needed to support equipment required to be OPERABLE by LCO 3.6.4.3, “Standby Gas Treatment (SGT) System,” and LCO 3.7.3, “Control Room Emergency Ventilation (CREV) System.”

Provide similar information as in the case of Question 15 above, applicable for Unit 3.

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<sup>1</sup> Polickoski, J.T., TVA, letter to the NRC, “License Amendment Request to Revise Technical Specifications to Adopt Risk-Informed Completion Times” dated March 31, 2022 (ML22090A287)