

## NRR-DRMAPEm Resource

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**From:** Schaaf, Robert  
**Sent:** Tuesday, May 28, 2019 1:01 PM  
**To:** 'Wells, Russell Douglas'; 'tjorf@tva.gov'  
**Cc:** Hulvey, Kimberly Dawn; 'Edmondson, Carla'; Brown, Michael Anthony; Shoop, Undine; Hon, Andrew  
**Subject:** Sequoyah Nuclear Plant and Watts Bar Nuclear Plant - Final Request for Additional Information Related to Request for Alternative to OM Code Requirements (EPID L-2019-LLR-0005)  
**Attachments:** Sequoyah and Watts Bar TDAFW RR Final RAI (L-2019-LLR-0005).pdf

Russ,

By letter dated January 18, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19018A118), the Tennessee Valley Authority (TVA) submitted requests for an alternative to the inservice testing requirements of the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code for the Sequoyah Nuclear Plant (SQN), Units 1 and 2, and the Watts Bar Nuclear Plant (WBN), Units 1 and 2. The requested alternative would apply to testing of the turbine driven auxiliary feedwater pumps (TDAFWP) for SQN Units 1 and 2 (alternative request RP 09) and WBN Units 1 and 2 (alternative request IST-RR-6).

The U.S. Nuclear Regulatory Commission (NRC) staff has determined that additional information, as described in the attached request for additional information (RAI), is required for the staff to complete its review of the subject request. This RAI was transmitted to TVA as draft on May 14, 2019.

On May 22, 2019, a teleconference was held regarding the draft RAI in which TVA identified the need for additional time to fully respond to the RAI. Specifically, TVA discussed the schedule for upcoming planned pump surveillance testing that would inform its response to the RAI, and requested 60 days from the date of the teleconference to provide TVA's response. The staff has determined that the requested response period is acceptable. Therefore, please provide TVA's response to the attached RAI by July 22, 2019, in order to enable the staff to complete its review in accordance with TVA's requested schedule for completion of the review.

Please call me at 301-415-6020 if you have any additional questions regarding this request for information.

Regards,

*Robert G. Schaaf*

Senior Project Manager

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U.S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
Division of Operating Reactor Licensing  
Mail Stop O-8B1A

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**From:** Schaaf, Robert

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REQUEST FOR ADDITIONAL INFORMATION  
REGARDING ALTERNATIVE REQUESTS RP 09 AND IST-RR-6  
TENNESSEE VALLEY AUTHORITY  
SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2  
FOURTH 10-YEAR INTERVAL INSERVICE TESTING PROGRAM  
WATTS BAR NUCLEAR PLANT UNIT 1  
THIRD 10-YEAR INTERVAL INSERVICE TESTING PROGRAM  
WATTS BAR NUCLEAR PLANT UNIT 2  
FIRST 10-YEAR INTERVAL INSERVICE TESTING PROGRAM  
DOCKET NOS. 50-327, 50-328, 50-390 AND 50-391

By letter dated January 19, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML19018A118), Tennessee Valley Authority (TVA, the licensee) requested to use alternatives to specified requirements of the American Society of Mechanical Engineers (ASME) Operations and Maintenance (OM) Code for the Sequoyah Nuclear Plant (SQN), Units 1 and 2, and the Watts Bar Nuclear Plant (WBN), Units 1 and 2.

The NRC staff has determined that the following additional information is needed to complete its review of TVA's ASME OM Code alternative request.

RAI EMIB-1

Regulatory Basis

If repair, replacement, or routine servicing that could affect reference values of a turbine driven auxiliary feedwater (TDAFW) is performed during an outage, ASME OM Code ISTB-3310 requires a Group A, comprehensive, or preservice test to be performed to confirm existing reference values or establish new reference values before declaring the pump operable. These tests require vibration monitoring during the test.

Issue Description

Section V of the licensee's request states that if repair, replacement, or routine servicing that could affect reference values of a TDAFW pump is performed during an outage, then initial pump operability for compliance with Technical Specification (TS) Limiting Condition for Operation 3.7.5 will be established by performance of the required TS Surveillance Requirement (SR) 3.7.5.2 pump test in Mode 3 with the required steam pressure test conditions. The SR 3.7.5.2 required test will be performed using the fixed resistance pump minimum flow recirculation path, in which pump speed is set, then flow and differential pressure are measured and compared to acceptance criteria established in accordance with OM Code provisions ISTB-3300, ISTB-5122, and Table ISTB-5121-1. This acceptance criteria is truncated if necessary to ensure the pump minimum design limits are met.

It appears that the test that TVA is proposing (the TS SR 3.7.5.2 pump test) is equivalent to a less rigorous Group B test and does not require vibration monitoring. Section VII of TVA's

alternative request references a similar alternative request for the Virgil C. Summer Nuclear Station Unit 1 (Summer) as a precedent. The NRC staff notes that in the Summer alternative request, the licensee stated that vibration data would also be obtained in accordance with ISTB-3540 as part of SR 3.7.5.2 when it is conducted following repair, replacement, or routine servicing.

Information Needed

Clarify and discuss whether vibration data will be obtained during the proposed TS SR 3.7.5.2 pump test following repair, replacement, or routine servicing to insure operational readiness of the TDAFW pump, consistent with the requirements of the OM Code.