

## **NRR-PMDAPem Resource**

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**From:** Saba, Farideh  
**Sent:** Thursday, September 14, 2017 4:59 PM  
**To:** 'david.walter@adph.state.al.us'  
**Cc:** Shoop, Undine; Hon, Andrew; Clayton, Beverly; Schaaf, Robert  
**Subject:** State Consultation: Request for Comments on Amendments to Browns Ferry Units 1, 2, and 3 to Change TSs to Adopt TSTF-522, "Revise Ventilation System Surveillance Requirements to Operate for 10 Hours"  
**Attachments:** 82 FR 26139 - Browns Ferry and Watts Bar - 6-6-17.pdf  
**Importance:** High

Dear Mr. Walter

The NRC is finalizing license amendments for Browns Ferry Nuclear Plant, Units 1, 2 and 3. In accordance with Title 10 of the Code of Federal Regulations, Section 50.91(b), I am notifying you of the proposed issuance of these amendments. The amendments revise technical specification surveillance requirements that currently require operating ventilation systems with charcoal filters for a 10-hour period every 31 days. The surveillance requirements are revised to require operation of the systems for 15 continuous minutes every 31 days. The amendments are consistent with NRC-approved Technical Specifications Task Force (TSTF) Traveler TSTF-522, Revision 0, "Revise Ventilation System Surveillance Requirements to Operate for 10 hours per Month," as published in the Federal Register on September 20, 2012 (77 FR 58421). The licensee's submittal dated April 5, 2017, is available in ADAMS under Accession No. ML17096A620.

The amendment was published in Federal Register on June 6, 2017 (82 FR 26139). Please see the attachment to this email. No public comments were received.

Please let us know, if you have any comments on behalf of the State of Alabama for the above amendments. Please contact me if you have any questions.

Regards,

Farideh  
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**Subject:** State Consultation: Request for Comments on Amendments to Browns Ferry Units 1, 2, and 3 to Change TSs to Adopt TSTF-522, "Revise Ventilation System Surveillance Requirements to Operate for 10 Hours"

**Sent Date:** 9/14/2017 4:58:35 PM

**Received Date:** 9/14/2017 4:58:00 PM

**From:** Saba, Farideh

**Created By:** Farideh.Saba@nrc.gov

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**Options**

**Priority:** High

**Return Notification:** No

**Reply Requested:** Yes

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

Sixth Avenue North, Birmingham, AL 35203–2015.

*NRC Branch Chief:* Jennifer Dixon-Herrity.

Susquehanna Nuclear, LLC, Docket Nos. 50–387 and 50–388, Susquehanna Steam Electric Station, Units 1 and 2, Luzerne County, Pennsylvania

*Date of amendment request:* January 25, 2017, as supplemented by letter dated March 21, 2017. Publicly-available versions are in ADAMS under Accession Nos. ML17044A149 and ML17080A405.

*Description of amendment request:* The amendments would revise certain Surveillance Requirements (SRs) in Technical Specification (TS) 3.8.1, “AC [Alternating Current] Sources—Operating.” The request is for changes in the use of steady state voltage and frequency acceptance criteria for onsite standby power source of the diesel generators (DGs), allowing for the use of new and more conservative design analysis.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below, with NRC edits in square brackets:

1. Does the proposed amendment involve a significant increase in the probability or consequences of any accident previously evaluated?

Response: No.

The proposed amendment would provide more restrictive acceptance criteria for certain DG technical specification surveillance tests. The proposed acceptance criteria changes would help to ensure the DGs are capable of carrying the electrical loading assumed in the safety analyses that take credit for the operation of the DGs. [The proposed changes] would not affect the capability of other structures, systems, and components to perform their design function, and would not increase the likelihood of a malfunction.

Therefore, the proposed amendment does not significantly increase the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed changes would provide more restrictive acceptance criteria to be applied to existing technical specification surveillance tests that demonstrate the capability of the facility DGs to perform their design function. The proposed acceptance criteria changes would not create any new failure mechanisms, malfunctions, or accident initiators not considered in the design and licensing bases.

Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety? Response: No.

The proposed DG surveillance requirement changes to voltage and frequency test acceptance criteria are conservative because the minimum steady state voltage increase and the narrowing of the acceptable steady-state frequency range validates use of existing design basis analysis for these test acceptance criteria. Both changes support the use of conservative administrative controls that remain in place, allowing [the] use of the new test acceptance criteria in test procedures until technical specifications reflect these new requirements. The conduct of surveillance tests on safety related plant equipment is a means of assuring that the equipment is capable of maintaining the margin of safety established in the safety analyses for the facility. The proposed amendment does not affect DG performance as described in the design basis analyses, including the capability for the DG to attain and maintain required voltage and frequency for accepting and supporting plant safety loads, should a DG start signal occur. The proposed amendment does not introduce changes to limits established in accident analysis.

Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee’s analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Damon D. Obie, Associate General Counsel, Talen Energy Supply, LLC, 835 Hamilton St., Suite 150, Allentown, PA 18101.

*NRC Branch Chief:* James G. Danna.

Tennessee Valley Authority, Docket Nos. 50–259, 50–260, and 50–296, Browns Ferry Nuclear Plant, Units 1, 2, and 3 (BFN), Limestone County, Alabama

Tennessee Valley Authority, Docket Nos. 50–390 and 50–391, Watts Bar Nuclear Plant, Units 1 and 2 (WBN), Rhea County, Tennessee

*Date of amendment request:* April 5, 2017. A publicly-available version is in ADAMS under Accession No. ML17096A620.

*Description of amendment request:* The amendments would modify technical specification surveillance requirements (SRs) that currently operate ventilation systems with charcoal filters for 10 hours each month in accordance with Technical Specification Task Force (TSTF)

Traveler TSTF–522, Revision 0, “Revise Ventilation System Surveillance Requirements to Operate for 10 hours per Month.” Specifically, BFN SRs 3.6.4.3.1 and 3.7.3.1, and WBN SRs 3.6.9.1 and 3.7.12.1 are being revised to require operation of the systems for 15 continuous minutes.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed change replaces existing Surveillance Requirements to operate the SGT [Standby Gas Treatment] and CREV [Control Room Emergency Ventilation] systems for BFN and the EGT [Emergency Gas Treatment] and ABGT [Auxiliary Building Gas Treatment] systems for WBN, equipped with electric heaters for a continuous 10 hour period every 31 days with a requirement to operate the systems for 15 continuous minutes with heaters operating.

These systems are not accident initiators and therefore, these changes do not involve a significant increase in the probability of an accident. The proposed system and filter testing changes are consistent with current regulatory guidance for these systems and will continue to assure that these systems perform their design function which may include mitigating accidents. Thus the change does not involve a significant increase in the consequences of an accident.

Therefore, it is concluded that this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change replaces existing Surveillance Requirements to operate the SGT and CREV systems for BFN and the EGT and ABGT systems for WBN, equipped with electric heaters for a continuous 10 hour period every 31 days with a requirement to operate the systems for 15 continuous minutes with heaters operating.

The change proposed for these ventilation systems does not change any system operations or maintenance activities. Testing requirements will be revised and will continue to demonstrate that the Limiting Conditions for Operation are met and the system components are capable of performing their intended safety functions. The change does not create new failure modes or mechanisms and no new accident precursors are generated.

Therefore, it is concluded that this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed change replaces existing Surveillance Requirements to operate the SGT and CREV systems for BFN and the EGT and ABGT systems for WBN, equipped with electric heaters for a continuous 10 hour period every 31 days with a requirement to operate the systems for 15 continuous minutes with heaters operating.

The design basis for the ventilation systems' heaters is to heat the incoming air which reduces the relative humidity. The heater testing change proposed will continue to demonstrate that the heaters are capable of heating the air and will perform their design function. The proposed change is consistent with regulatory guidance.

Therefore, it is concluded that this change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* General Counsel, Tennessee Valley Authority, 400 West Summit Hill Dr., WT 6A, Knoxville, TN 37902.

*NRC Branch Chief:* Benjamin G. Beasley.

Tennessee Valley Authority, Docket No. 50-390, Watts Bar Nuclear Plant, Unit 1, Rhea County, Tennessee

*Date of amendment request:* March 16, 2017. A publicly-available version is in ADAMS under Accession No. ML17075A229.

*Description of amendment request:* The amendment would revise Technical Specification (TS) 3.3.1, "Reactor Trip System (RTS) Instrumentation," Table 3.3.1-1, to increase the values for the nominal trip setpoint and the allowable value for Function 14.a. "Turbine Trip—Low Fluid Oil Pressure." The proposed amendment also requests changes in accordance with Technical Specifications Task Force (TSTF) Traveler TSTF-493, Revision 4, "Clarify Application of Setpoint Methodology for LSSS [Limiting Safety System Settings] Functions," Option A, for the affected turbine trip on low fluid oil pressure function setpoints only.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or

consequences of an accident previously evaluated?

Response: No.

The proposed change reflects a design change to the turbine control system that results in the use of an increased control oil [system pressure], necessitating a change to the value at which a low fluid oil pressure initiates a reactor trip on turbine trip. The low fluid oil pressure is an input to the reactor trip instrumentation in response to a turbine trip event. The value at which the low fluid oil initiates a reactor trip is not an accident initiator. A change in the nominal control oil pressure does not introduce any mechanisms that would increase the probability of an accident previously analyzed. The reactor trip on turbine trip function is initiated by the same protective signal as used for the existing auto stop low fluid oil system trip signal. There is no change in form or function of this signal and the probability or consequences of previously analyzed accidents are not impacted.

The proposed change also adds test requirements to the low fluid oil pressure TS instrument function related to those variables to ensure that instruments will function as required to initiate protective systems or actuate mitigating systems at the point assumed in the applicable setpoint calculation. Surveillance tests are not an initiator to any accident previously evaluated. As a result, the probability of any accident previously evaluated is not significantly increased. The systems and components required by the low fluid oil pressure TS instrument function for which surveillance tests are added are still required to be operable, meet the acceptance criteria for the surveillance requirements, and be capable of performing any mitigation function.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The EHC [electrohydraulic control] fluid oil pressure rapidly decreases in response to a turbine trip signal. The value at which the low fluid oil pressure switches initiates a reactor trip is not an accident initiator. The proposed TS change reflects the higher pressure that will be sensed after the pressure switches are relocated from the auto stop low fluid oil system to the EHC high pressure header. Failure of the new switches would not result in a different outcome than is considered in the current design basis. Further, the change does not alter assumptions made in the safety analysis but ensures that the instruments perform as assumed in the accident analysis.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the change involve a significant reduction in a margin of safety?

Response: No.

The change involves a parameter that initiates an anticipatory reactor trip following

a turbine trip. The safety analyses do not credit this anticipatory trip for reactor core protection. The original pressure switch configuration and the new pressure switch configuration both generate the same reactor trip signal. The difference is that the initiation of the trip will now be adjusted to a different system of higher pressure. This system function of sensing and transmitting a reactor trip signal on turbine trip remains the same. Also, the proposed change adds test requirements that will assure that technical specifications instrumentation allowable values: (1) Will be limiting settings for assessing instrument channel operability and; (2) will be conservatively determined so that evaluation of instrument performance history and the as left tolerance requirements of the calibration procedures will not have an adverse effect on equipment operability. The testing methods and acceptance criteria for systems, structures, and components, specified in applicable codes and standards (or alternatives approved for use by the NRC) will continue to be met as described in the plant licensing basis including the updated Final Safety Analysis Report. There is no impact to safety analysis acceptance criteria as described in the plant licensing basis because no change is made to the accident analysis assumptions.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Sherry A. Quirk, General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, 6A West Tower, Knoxville, TN 37902.

*NRC Branch Chief:* Benjamin G. Beasley.

### III. Notice of Issuance of Amendments to Facility Operating Licenses and Combined Licenses

During the period since publication of the last biweekly notice, the Commission has issued the following amendments. The Commission has determined for each of these amendments that the application complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

A notice of consideration of issuance of amendment to facility operating license or combined license, as applicable, proposed no significant hazards consideration determination,