

would be slightly less than assumed for the steam generator tube rupture analysis and; therefore, would result in lower total primary fluid mass release to the secondary system. A main steam line break or feedwater line break will not cause a SGTR since the sleeves are analyzed for a maximum accident differential pressure greater than that predicted in the Watts Bar Unit 1 safety analysis. The minimal repair sleeve/tube assembly leakage that could occur during plant operation is well within the Technical Specification leakage limits when grouped with current alternate plugging criteria calculated leakage values.

Therefore, TVA has concluded that the proposed 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?

No. The Alloy 800 leak-limiting repair sleeves are designed using the applicable ASME Code as guidance; therefore, it meets the objectives of the original steam generator tubing. As a result, the functions of the steam generators will not be significantly affected by the installation of the proposed sleeve. The proposed repair sleeves do not interact with any other plant systems. Any accident as a result of potential tube or sleeve degradation in the repaired portion of the tube is bounded by the existing SGTR accident analysis. The continued integrity of the installed sleeve/tube assembly is periodically verified by the Technical Specification requirements and the sleeved tube plugged on detection of degradation.

The implementation of the proposed amendment has no significant effect on either the configuration of the plant, or the manner in which it is operated. Therefore, TVA concludes that this proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

No. The repair of degraded steam generator tubes with Alloy 800 leak-limiting repair sleeves restores the structural integrity of the degraded tube under normal operating and postulated accident conditions and thereby maintains current core cooling margin as opposed to plugging the tube and taking it out of service. The design safety factors utilized for the repair sleeves are consistent with the safety factors in the ASME Boiler and Pressure Vessel Code used in the original steam generator design. The portions of the installed sleeve/tube assembly that represent the reactor coolant pressure boundary can be monitored for the initiation of sleeve/tube wall degradation and affected tube plugged on detection. Use of the previously identified design criteria and design verification testing assures that the margin to safety is not significantly different from the original steam generator tubes.

Therefore, TVA concludes that 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.

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

*Date of amendment request:* December 13, 2002.

*Description of amendment request:* The proposed amendment would revise the Watts Bar Nuclear Plant, Unit 1, Technical Specifications to add two new Sections, 3.7.16, "Shutdown Board Room Air Conditioning System," and 3.7.17, "Elevation 772.0 480 Volt Board Room Air Conditioning Systems."

*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 in accordance with the three standards set forth in 10 CFR 50.92(c), which are presented below:

A. The proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

[No.] The proposed revision to the [Watts Bar Nuclear Plant] TS will provide formalized operational guidance for coping with partial or complete unavailability of SDBR [shutdown board room] and 480V board room air conditioning (AC) equipment for limited periods of time. The change does not impact the frequency of an accident because failure of either the SDBR or the 480V board room AC systems is not an initiator of any accident scenario. The change does not modify any plant hardware including the air conditioning systems, and none of their automatic control features or redundant systems currently credited in failure analyses are being deleted, modified, or otherwise replaced by operator actions as a result of the proposed change.

The proposed TS revision changes current plant operating practice and WBN Final Safety Analysis Report (FSAR) assumptions by allowing continued power operation with both trains of SDBR air conditioning concurrently inoperable and two 480V board room AC systems of the same unit to be concurrently inoperable for a limited duration, up to 12 hours. This condition is acceptable based on the low probability of the occurrence of postulated accidents resulting in core damage concurrent with multiple inoperable systems or trains of cooling equipment during this timeframe, and based on analyses which demonstrate

that peak temperatures in each room served by these systems remain below mild environment temperature limits during this time period. Consequently, there is no significant adverse impact on the ability of required safety-related electrical equipment to continue to operate and perform their required functions, during both normal operation and during design basis events. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

[No.] The proposed change does not modify any plant hardware including the subject air conditioning systems. The change provides specific operational guidance for coping with partial or complete unavailability of SDBR and 480V board room air conditioning equipment. No new accident or event initiators are created by allowing multiple air conditioning systems to be unavailable for the limited time period of 12 hours. The supported electrical equipment remains capable of performing its intended function both during normal operations and post accident. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

C. The proposed amendment does not involve a significant reduction in a margin of safety.

[No.] The proposed TS revision changes current FSAR assumptions by allowing continued power operation with both trains of SDBR air conditioning concurrently inoperable and allowing two 480V board room air conditioning systems of the same unit to be inoperable for a limited duration, up to 12 hours. This condition does not significantly reduce the margin of safety due to the low probability of the occurrence of a postulated accident resulting in core damage concurrent with multiple inoperable systems or trains of cooling equipment during the limited time period. In addition, transient temperature analyses demonstrate that peak temperatures in each room served by these systems remain below mild environment temperature limits for a period of 24 hours assuming a complete loss of air conditioning to all rooms served by the SDBR and 480V board room AC systems concurrently. The analysis is bounding for normal operational conditions. Consequently, there is no significant adverse impact on the ability of required safety-related electrical equipment to continue to operate and perform their required functions during both normal operation and during design basis events. 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.