



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

December 2, 2010

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Watts Bar Nuclear Plant, Unit 2
NRC Docket No. 50-391

Subject: Watts Bar Nuclear Plant (WBN) Unit 2 – Unresolved Safety Issue Status (A-12 and A-36)

Reference: 1. Safety Evaluation Report Related to Operation of Watts Bar Nuclear Plant Units 1 and 2, Docket Numbers 50-390 and 50-391, June 1982 including Supplement 13, April 1994, and Supplement 15, June 1995

In response to a verbal request from NRC Project Management, this letter provides the WBN Unit 2 implementation plan for two Unresolved Safety Issues (USIs). Both of these issues were closed for Unit 1 prior to Unit 1 license issuance (Reference 1).

The first USI, A-12, "Potential for Low Fracture Toughness and Lamellar Tearing on PWR Steam Generator and Reactor Coolant Pump Supports," is based on the requirements of NUREG-0577 of the same title and was addressed in WBN Unit 1&2 Calculation WBNSSG6-002. This calculation documents the results of the review of the Steam Generator (SG) and Reactor Coolant Pump (RCP) support materials utilizing Appendix II of Electric Power Research Institute (EPRI) Report NP-3528, "Requirements and Guidelines for Evaluating Component Support Materials Under Unresolved Safety Issue A-12." Based on the results of this review, the SG and RCP support materials (except for three heats of ASTM A564 Type XM16 bolts) comply with NUREG-0577 requirements, and the potential for low toughness fracture of these materials is not of concern. The three heats of ASTM A564 Type XM16 bolts (heats 91251, 91081, and 91243) were used in upper SG support bolting applications. These heats were evaluated for adequate fracture toughness in nonconformance report (NCR) GENNEB8201.

Corrective action for this NCR initiated a bolting reheat treatment program for both Units 1 and 2, which has been completed. NRC Inspection Report 50-390/84-03 and 50-391/84-03 dated February 15, 1984, closed this bolting item for Units 1 and 2.


The second USI, A-36, "Control of Heavy Loads Near Spent Fuel Pool," was closed in Supplement 13, SSER Section 9.1.4 for Unit 1. Unit 1 performed the following actions:

1. Safe load paths were clearly defined.
2. Load handling procedures were put into place.
3. Inspection and testing programs for overhead handling systems, including lift devices, were established.
4. Operator qualification and training is controlled and documented.
5. American National Standards Institute (ANSI) N14.6 governs the design and application of special lifting devices.
6. ANSI B30.9 governs those lifting devices assembled from manufacturer's components.
7. Crane design meets the requirements of Crane Manufacturers Association of America (CMAA) standard CMAA-70, ANSI B30.2, or other applicable industry standards. (Note: Supplement 13 inadvertently used CMMA-80 instead of CMMA-70.)

Directly related to this USI is Generic Letter 81-07 that requested a review of controls for the handling of heavy loads to determine the extent to which the guidelines of NUREG-0612 are currently satisfied and to identify the changes and modifications that would be required in order to fully satisfy these guidelines. For USI A-36 and Generic Letter 81-07, Unit 2 will utilize the same approach as was used for Unit 1.

New commitments are associated with this submittal for USI A-36 and are listed in Enclosure 1. If you have any questions, please contact William Crouch at (423) 365-2004.

Sincerely,


Masoud Bajestani
Watts Bar Unit 2 Vice President

Enclosure:

1. Commitments for Unit 2 Associated with USI A-36

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cc (Enclosure):

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Enclosure 1

Commitments for Unit 2 Associated with USI A-36

1. Safe load paths shall be clearly defined.
2. Load handling procedures shall be in place.
3. Inspection and testing programs for overhead handling systems, including lift devices, shall be in place.
4. Operator qualification and training shall be controlled and documented.
5. American National Standards Institute (ANSI) N14.6 shall govern the design and application of special lifting devices.
6. ANSI B30.9 shall govern those lifting devices assembled from manufacturer's components.
7. Crane design shall meet the requirements of Crane Manufacturers Association of America (CMAA) standard CMAA-70, ANSI B30.2, or other applicable industry standards.