



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

September 1, 2010

10 CFR 50.4(b)(6)
10 CFR 50.34(b)
10 CFR 2.390(d)(1)

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

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

**Subject: Watts Bar Nuclear Plant, Unit 2 - Request for Additional Information (RAI)
Regarding Final Safety Analysis Report Amendment Related Section 3.11
(TAC No. ME2731)**

Reference: 1. Letter from NRC to TVA, "Watts Bar Nuclear Plant, Unit 2 - Request for Additional Information Regarding Final Safety Analysis Report Amendment Related Section 3.11 (TAC No. ME2731)," dated July 30, 2010 [ML102020281]

By letters dated November 24, 2009; December 14, 2009; January 11, 2010; May 7, 2010; and May 27, 2010; the Tennessee Valley Authority submitted FSAR Amendments 95, 96, 97, 98, and 99, respectively. This letter responds to RAI 3.11-2 from Reference 1.

Enclosure 1 provides the responses to the RAI.

There are no new regulatory commitments contained in this letter. If you have any questions, please contact Bill Crouch at (423) 365-2004.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 1st day of September, 2010.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Bajestani", is written over the typed name.

Masoud Bajestani
Watts Bar Unit 2 Vice President

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Enclosure:

1. Response to RAI 3.11-2

cc (Enclosure):

U. S. Nuclear Regulatory Commission
Region II
Marquis One Tower
245 Peachtree Center Ave., NE Suite 1200
Atlanta, Georgia 30303-1257

NRC Resident Inspector Unit 2
Watts Bar Nuclear Plant
1260 Nuclear Plant Road
Spring City, Tennessee 37381

ENCLOSURE 1

Response to RAI 3.11-2

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3.11-2 *Confirm that equipment being replaced or refurbished will be qualified as Category 1 as required by 10 CFR 50.49.*

Response: Replaced equipment is being procured qualified to the NUREG-0588, Category 1 requirements.

A small population of components is being refurbished as follows:

- a. All 6.9 kV motors will be refurbished, but only one will be rewound.

Refurbishment that will be performed is considered routine maintenance that does not impact qualification of the motors. The extent of refurbishment undertaken includes the Environmental Qualification (EQ) maintenance requirements as specified in the Qualification Maintenance Data Sheet (QMDS) contained in the applicable Environmental Qualification Data Package (EQDPs). The refurbishment documentation--materials, process, and the work completion certification, is reviewed against the original qualification report of the motors; and the qualification of the refurbished motors is documented in the applicable EQDP. These Westinghouse motors were originally procured for Watts Bar Unit 1 and Unit 2, and they are qualified to NUREG-0588, Category II (IEEE Standard 323-1971).

Only one containment spray pump motor will be rewound; materials for this motor will be those qualified in the EPRI motor rewind test program, which meets the NUREG-0588, Category I criteria. The qualification will be documented in a new EQDP.

- b. Electrical Penetration Assemblies (EPA):

These EPAs are qualified to NUREG-0588, Category I. The Watts Bar Units 1 and 2 EPAs are of the identical design made by Conax Nuclear which were procured and installed around the same time period.

Unit 2 is refurbishing the EPAs by replacing the missing and the damaged feedthrough modules with new ones of identical design and type and adding some new feedthrough modules qualified to NUREG-0588, Category I.

- c. Terminal Blocks

The field walkdown has noted that the terminal blocks installed in the EQ application for Unit 2 are the GE make CR151B, which are qualified to NUREG-0588, Category I. Design modifications have been issued to inspect and replace the EQ terminal blocks that are found damaged or degraded with equivalent CR151B blocks.

ENCLOSURE 1

Response to RAI 3.11-2

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d. Main Steam Isolation Valves (MSIV)

The original Unit 2 MSIVs are qualified to NUREG-0588, Category II. The MSIVs are being refurbished by replacing the missing subcomponents, including the solenoid valves, terminal blocks and manufacturing wiring with the components of the same make, model and type as supplied on the original Purchase Order. With the exception of the solenoid valves, the subcomponents will be qualified to NUREG-0588, Category I requirements. The solenoid valves cannot be upgraded because these equivalent subcomponents are not available qualified to NUREG-0588, Category I requirements.

e. Cables purchased on Contract 81K5-830078

TVA purchased identical cables under Rockbestos contracts 80K7-826542 and 81K5-830078. The cable purchased under contract 80K7-826542 was purchased and installed prior to the February 22, 1983, cutoff date stipulated in Regulatory Guide 1.89, Revision 1 for Category II qualification and therefore meets the full Regulatory Guide 1.89 and NUREG-0588 requirements for Category II qualification. Verification of the purchasing and installation documentation for cables purchased under Rockbestos contract 81K5-830078 has determined that the cables were purchased in 1982 but installed in 1985. In accordance with Regulatory Guide 1.89, Revision 1, Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Power Plants, paragraph 6, "Replacement electric equipment installed subsequent to February 22, 1983, must be qualified in accordance with the provisions of 50.49 unless there are sound reasons to the contrary. The NRC staff considers the following to be sound reasons for the use of replacement equipment previously qualified in accordance with the DOR Guidelines or NUREG-0588 in lieu of upgrading...6.c. Identical equipment to be used as a replacement was on hand as part of the utilities stock prior to February 22, 1983." The cable from contract 81K5-830078 is not "replacement" equipment (i.e., it is new), and it was on hand prior to February 22, 1983, but was installed after 1983. Since the cable from contract 81K5-830078 is of identical design and the installation of the cable is no different than that supplied on contract 80K7-826542, the cable purchased under contract 81K5-830078 is considered equally qualified and acceptable under the Category II requirements. This is documented in EQ Binder WBNEQ-CABL-036.