



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

June 13, 2012

10 CFR 50.4

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
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
Regarding Final Safety Analysis Report Amendment Related Section 3.11 -
Revised Response (TAC No. ME2731)**

- References:
1. TVA letter to NRC dated August 3, 2011, "Watts Bar Nuclear Plant, Unit 2 - Request for Additional Information (RAI) Regarding Final Safety Analysis Report Amendment Related Section 3.11- Revised Response (TAC No. ME2731)" [ML11217A107]
 2. TVA letter to NRC dated September 1, 2010, "Watts Bar Nuclear Plant, Unit 2 - Request for Additional Information (RAI) Regarding Final Safety Analysis Report Amendment Related Section 3.11 (TAC No. ME2731)" [ML102500170]

The purpose of this letter is to update TVA's response to Final Safety Analysis Report (FSAR) Request for Additional Information (RAI) 3.11-2. TVA's previous two responses to RAI 3.11-2 are listed as References 1 and 2. The information provided in the enclosure updates the number of cables whose procurement and installation dates do not meet the cutoff dates specified in Supplement 2 of NRC IE Bulletin 79-01B, "Environmental Qualification of Class 1E Equipment" and Revision 1 of Regulatory Guide 1.89, "Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Power Plants." The revised statements in the enclosure are marked with a vertical line drawn in the margin.

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

DOBO
MRR

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I declare under penalty of perjury that the foregoing is true and correct. Executed on the 13th day of June, 2012.

Respectfully,

A handwritten signature in black ink, appearing to read "R.A. Hruby, Jr.", written in a cursive style.

Raymond A. Hruby, Jr.
General Manager, Technical Services
Watts Bar Unit 2

Enclosure: Revised 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

Revised 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.*

Note: Since only portion e. of the original response is revised, it is the only portion included in this response.

Original Response:

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

A small population of components is being refurbished as follows:

- 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.

ENCLOSURE 1

Revised Response to RAI 3.11-2

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Revised Response:

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

A small population of components is being refurbished as follows:

e. Cables

During verification and validation of Unit 2 EQ cables, it was determined that procurement and installation dates of some Unit 2 EQ cables from WBN contracts do not meet the cutoff dates for procurement (May 23, 1980, as specified in IE Bulletin 79-01B, Supplement 2) and installation (February 22, 1983, as specified in Regulatory Guide 1.89, Revision 1). The approximate number of cables is as follows:

| <u>Contract</u> | <u>Qty</u> | <u>Manufacturer</u> |
|-----------------|------------------|------------------------------|
| 71C070005476202 | 1 cable | Triangle-Pwc-Inc. |
| 79K0500824965 | 7 cables | American Insulated Wire Corp |
| 80K0700826542 | 8 cables | Rockbestos Company |
| 81K0500830078 | 42 cables | Rockbestos Company |
| Total | 58 Cables | |

These cables were new cables installed in the plant for the first time in Unit 2. Material purchased on these contracts has been determined to meet the qualification criteria of NUREG-0588 Category II using the guidelines established in IEEE 323-1971.

Material purchased on contracts 71C070005476202, 79K0500824965, and 80K0700826542 was purchased prior to May 23, 1980, and was on hand as part of TVA stock before February 22, 1983. However, this material was not installed in Unit 2 until the 1983 to 1985 time frame. Material from each of these contracts was installed at other TVA facilities prior to the February 22, 1983, date and is in full compliance with the qualification criteria of 10 CFR 50.49 as documented in site EQ Qualification Binders. Unit 2 material from these contracts is considered equally qualified as those at other TVA facilities.

NRC's review and approval of TVA's use of the material purchased under contract 81K0500830078 is documented in Section 3.11.2.2.1, "Electrical Equipment in a Harsh Environment," of Supplemental Safety Evaluation Report (SSER) 22 dated February 2011. In Section 3.11.2.2.1 of SSER 22, NRC indicates that its review of TVA's EQ program procedures for Unit 2 was being tracked as Open Item 19 of SSER Appendix HH, "Watts Bar Unit 2 Action Items Table." TVA's response to Open Item 19 was determined to be acceptable and closed by NRC in an update of Appendix HH in SSER 24 dated September 2011.

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In accordance with C.6 of Regulatory Guide (RG) 1.89, Revision 1 (Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Power Plants), "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: ... c. Identical equipment to be used as a replacement was on hand as part of the utility's stock prior to February 22, 1983."

These cables were on hand as part of TVA stock before February 22, 1983, and the material was equal to material installed and qualified at other TVA facilities prior to February 22, 1983. Therefore, TVA chose not to upgrade these cables to Category I requirement when installing them in the 1983 to 1985 time frame. In addition, TVA believes that this condition is in compliance with the requirements of RG 1.89, Revision 1 and that no deviation in this case is required.

There are approximately 3,700 EQ cables installed for Unit 2. Therefore, these approximately 58 cables represent a small percentage of the total EQ cables installed in Unit 2. Should these cables require replacement in the future, TVA will follow our internal design criteria and thus comply with NUREG-0588 and replace the cables with material that meets the qualification criteria of NUREG-0588 Category I using the guidelines established in IEEE 323-1974.