



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

July 10, 2009

10 CFR 50.54f

U.S. Nuclear Regulatory Commission
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Washington, D.C. 20555-0001

In the Matter of)
Tennessee Valley Authority)

Docket No. 50-391

**WATTS BAR NUCLEAR PLANT (WBN) - UNIT 2 – ADDITIONAL INFORMATION
REGARDING WBN UNIT 2 CORRECTIVE ACTION PROGRAMS (TAC NO.
MD9424)**

- References:
1. NRC Safety Evaluation Report Related to the Operation of Watts Bar Nuclear Plant, Unit 2 NUREG-0847 Supplement 21, February 2009
 2. TVA letter dated September 26, 2008, "Watts Bar Nuclear Plant (WBN) – Unit 2 – Regulatory Framework for the Completion of Construction and Licensing Activities for Unit 2 - Corrective Action and Special Programs, and Unresolved Safety Issues"
 3. NRC letter dated February 11, 2009, "Watts Bar Nuclear Plant - Unit 2 – Status of Regulatory Framework for the Completion of Corrective Action and Special Programs and Unresolved Safety Issues (TAC NO. MD9424)"

The purpose of this letter is to provide additional information regarding the Unit 2 Corrective Action Programs (CAPs) addressing the Quality Assurance (QA) Records and Replacement Items (Piece Parts) Programs. These CAPs are discussed in Reference 1, section 1.13.1, under items (13) QA Records, and (15) Replacement Items Program, respectively.

In Reference 2, TVA requested that NRC close the QA Records CAP. In Reference 3, NRC requested additional clarification. Based on subsequent discussion, TVA will statistically sample the WBN Unit 2 QA records by record type to determine their retrievability, storage integrity, and completeness. TVA will resolve any technical or quality problems that are found. A revised summary of the CAP is included in Enclosure 1.

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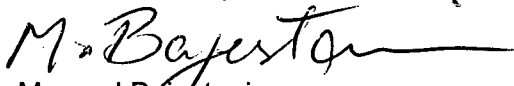
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In Reference 2, TVA requested that NRC review and approve the approach for closing the Replacement Items CAP. In Reference 3, NRC requested additional clarification. Based on subsequent discussion, TVA will sample the Unit 2 safety and quality-related materials installed by previous maintenance and construction activities to ensure that there were no unique items used on Unit 2 and, if there were, to ensure that no deficiencies were associated with these items. A revised summary of the CAP is included in Enclosure 1.

There are no new open actions required for licensing made in this letter or Enclosure 1. I declare under penalty of perjury that the foregoing is true and correct. Executed on the 10th day of July, 2009.

If you have any questions, please contact me at (423) 365-2351.

Sincerely,


Masoud Bajestani
Watts Bar Unit 2 Vice President

Enclosure
cc (See page 3):

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Enclosure

cc (Enclosure):

Lakshminarasimh Raghavan
U.S. Nuclear Regulatory Commission
MS 08H4A
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852-2738

Patrick D. Milano, Senior Project Manager (WBN Unit 2)
U.S. Nuclear Regulatory Commission
MS 08H4
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852-2738

Loren R. Plisco, Deputy Regional Administrator for Construction
U. S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30303-8931

U. S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30303-8931

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

Enclosure 1

Revised Summaries for QA Records and Replacement Items

Corrective Action Programs

QA Records Corrective Action Program (CAP)

TVA provides the following information to support NRC's review of the QA Records CAP for Unit 2.

1. Proposed Action

TVA requests that the NRC review and approve the approach for closing the CAP for QA Records on Unit 2 using the Unit 1 approach. Additionally, based on the information provided below, TVA requests that the NRC approve the sampling plan described herein.

2. Current Status of Licensing Review

Historical Summary

A number of the quality records required for licensing:

- Were not retrievable in a timely manner or potentially missing
- Were not maintained in proper storage
- Had quality problems (were incomplete; technically or administratively deficient)

To address these issues, the QA Records CAP was developed with the following objectives for these records:

- Ensure adequate storage and retrievability
- Resolve quality and technical problems
- Ensure programs are established that are adequate to prevent recurrence of record problems

During the course of implementation of the CAP, additional records issues were identified. Evaluation of these issues indicated a need to expand the scope to address the full extent of condition by including a broader set of records categories. This was accomplished through incorporating an Additional Systematic Records Review of the ANSI/ASME N45.2.9, 1974, Appendix A record types applicable to WBN into the CAP. This review was based on sampling and statistical analysis and provided the necessary information to develop procedures to evaluate and correct records considering their significance in the documentation of the quality of safety systems and components. This provided a high level of confidence in the adequacy of QA Records.

Revisions/Deviations from the Unit 1 Approach

Relevant Unit 2 records are similar to Unit 1 QA records, and many of the personnel involved with Unit 1 QA records were also involved with Unit 2 QA records. For these reasons, the Unit 2 issues will be similar to those found during the Unit 1 licensing effort. Additionally, several of the actions taken at that time are common to both units and, since they have already been implemented, are considered to be complete. For example, as a result of the sampling and subsequent evaluation of QA records, procedures were put in place to ensure similar problems would be addressed. Furthermore, since these processes will be used for Unit 2 activities, the problems that were identified during Unit 1 completion that exist in Unit 2 documentation will be identified and corrected during the course of completing Unit 2. To ensure that QA records issues that exist on Unit 2 are identified and corrected in a timely manner, TVA will statistically sample Unit 2 QA records by type to ensure their retrievability, storage integrity, and completeness. The initial sample size used for Unit 2 will be smaller than the Unit 1 ASRR sample. These QA records will be selected from the CAPs, Special Programs, and several other programs being performed for Unit 2. Furthermore, the sample will include records similar to those for which technical content issues occurred on Unit 1 to provide additional assurance that these issues are adequately addressed for Unit 2.

As indicated above, the sample will be selected from records for CAPs and Special Programs, as well as those other record populations that were sampled for Unit 1 and are being worked for Unit 2. This will consider the attributes as well as record types that are relevant to a given program or population. The specific programs in this population are:

Corrective Action Programs

- Cable Issues
- Cable Tray and Cable Tray Supports
- Design Basis Verification Program
- Conduit Supports
- Electrical Issues
- Equipment Seismic Qualification
- Fire Protection
- Hanger and Analysis Update Program
- Heat Code Traceability
- HVAC Duct and Duct Supports
- Instrument Sensing Lines
- Q-List
- Replacement Parts
- Seismic Analysis
- Vendor Information
- Welding

Special Programs

- Containment Cooling
- Control Room Design Review
- Equipment Qualification of Electrical Equipment
- Master Fuse List
- Mechanical Equipment Qualification
- Microbiologically Induced Corrosion
- Moderate Energy Line Break Flooding
- Radiation Monitoring System
- Use-as-is Conditions Adverse to Quality

Other Programs

- Valves
- Instruments
- Mechanical Equipment
- Miscellaneous and Structural Steel
- Masonry Walls
- Coatings

The types of records that will be selected include as-constructed drawings, design reports, inspection reports, procurement specifications, and Ultrasonic Test results.

Aside from this smaller statistical sample, the Unit 1 approach will be used for Unit 2.

History of TVA CAP Plan Submittals and NRC Approvals

CAP Plan:

- TVA letters dated December 21, 1988, to April 6, 1994, WBN Unit 1 – CAP Plan for QA Records, Revisions 0 through 6

NRC Approval of Approach:

- SSER9, June 1992
- WB Unit 1 - Staff Position on Certain Aspects of QA Records CAP, January 12, 1993
- Supplemental Safety Evaluation on the QA Records CAP Plan, April 25, 1994

3. Analysis of Conformance

This item is discussed under basis for closure.

4. Final Safety Analysis Report (FSAR)

None

5. Technical Specifications (TS)/Technical Requirements Manual (TRM)

None

6. Other Items Requiring Verification

Prior to fuel load, the CAP closure documentation for this program will be available for review, and records completed as part of the completion effort will be available for inspection.

7. Interdependencies

None.

Replacement Items (Piece Parts) CAP

TVA provides the following information to support NRC's review of the Replacement Items CAP for Unit 2.

1. Proposed Action

TVA requests that the NRC review and approve the approach for closing this program. Additionally, based on the information provided below, TVA requests that the NRC approve the sampling plan described herein.

2. Current Status of Regulatory Review

Historical Summary

Previous TVA policies and procedures had not adequately directed and controlled engineering involvement in the procurement process used to purchase replacement items and had not incorporated industry guidance or complied with NRC Generic Letters 89-02 and 91-05. This included commercial grade dedication.

The CAP grouped the issues into four categories:

- Current and future purchases,
- Current warehouse inventory,
- Plant-installed items from previous maintenance activity, and
- Replacement items installed by previous construction activities.

To address these categories, TVA:

- Created the Procurement Engineering Group (PEG), which reviewed and evaluated procurements made for safety-related applications and developed a process for these activities.
- Created the Material Improvement Project to evaluate the adequacy of current inventory with respect to technical adequacy, QA receipt inspection, and material storage.
- Back-checked materials installed from previous maintenance activities to ensure that a proper documentation trail existed from the warehouse to maintenance history for each item. Approximately 13,000 installed items were identified and evaluated or replaced.
- Reviewed the construction group's procurements of replacement items. Approximately 74,000 installed items were identified and evaluated. This review indicated that required documentation for parts traceability was available and that the materials were procured properly with engineering involvement.

It is important to note that, for the overall Replacement Items CAP, in only a few cases (< 0.005 percent) was hardware found to be nonconforming after evaluating the adequacy of the procured documents. While other items were surplus, this was done for economic reasons and not because material was found to be nonconforming. Finally, NRC IR 50-390/95-50 and 50-391/95-50 inspected the program in August of 1995 and found it to be adequately implemented, and noted that the program included the review of nearly 200,000 items with only a limited number of safety significant problems being identified.

Revision/Deviation from Unit 1 Approach

Industry practices and regulatory acceptance of those practices at the time of completion of Unit 1 remain applicable now. Several of the actions performed at that time, such as the establishment of the PEG and evaluation of warehouse inventory (and continued control of dedications), are common to both units and, since they have already been implemented, are considered complete.

As most of the early procurement activities were performed for both units and a large number were sampled for Unit 1, and there was a small number that were non-conforming, TVA will sample the Unit 2 safety and quality-related materials installed by previous maintenance and construction activities to ensure that there were no unique items used on Unit 2 and, if there were, that no deficiencies were associated with these items. TVA will bias the sample to exclude materials that will be replaced by either the refurbishment program or by the 10 CFR 50.49 scope of work. In addition, TVA will evaluate or replace the known deficiencies in commercial grade dedication.

History of TVA CAP Plan Submittals and NRC Approvals

CAP Plan:

- TVA letter dated August 7, 1989, WBN Unit 1 – Revision to CAP Plan for Replacement Items Program (Piece Parts)
- TVA letter dated January 20, 1995, WBN Unit 1 – Revision 6 to CAP Plan for Replacement Items Program

NRC Approval of Approach:

- Safety Evaluation of the WB Unit 1 Plan for the Replacement Items Program, November 22, 1989
- NUREG-1232
- SSER6, Appendix N, April 1991
- NRC letter dated February 6, 1995, Watts Bar Unit 1 – Replacement Items Corrective Action Program Plan

3. Analysis of Conformance

The discussion of Revision/Deviations from the Unit 1 approach describes the manner in which the Unit 2 program will be in conformance with requirements.

4. FSAR

None.

5. TS/TRM

None.

6. Other Items Requiring Verification

Prior to fuel load, the closure documentation for this CAP and evaluations of procurement of spare parts for safety-related applications will be available for review.

7. Interdependencies

None.