



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

September 8, 2009

Mr. Ashok Bhatnagar  
Senior Vice President  
Nuclear Generation Development  
and Construction  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 2 – SAFETY EVALUATION INPUT  
REGARDING QUALITY ASSURANCE RECORDS CORRECTIVE ACTION  
PROGRAM (TAC NO. ME2168)

Dear Mr. Bhatnagar:

By letter dated January 29, 2008 (ADAMS Accession No. ML080320443), as supplemented by letters dated September 26, 2008 (ADAMS Accession No. ML082750019), and July 10, 2009 (ADAMS Accession No. ML091960112), the Tennessee Valley Authority (TVA) submitted an application for approval of the Quality Assurance Records Corrective Action Program for Watts Bar Nuclear Plant, Unit 2.

The staff has reviewed TVA's application including the supplemental letters and find them acceptable. Enclosed is the staff's safety evaluation completing the staff's efforts for TAC No. ME2168.

If you have any questions regarding this issue, please feel free to contact John G. Lamb at (301) 415-3100.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Raghavan".

L. Raghavan, Chief  
Watts Bar Special Projects Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-391

Enclosure: As stated



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION

BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REGARDING THE QUALITY ASSURANCE RECORDS CORRECTIVE ACTION PROGRAM

TENNESSEE VALLEY AUTHORITY (TVA)

WATTS BAR NUCLEAR PLANT, UNIT 2

DOCKET NO. 50-391

1.0 INTRODUCTION

The Watts Bar Nuclear Performance Plan (WBNPP) was submitted to the U. S. Nuclear Regulatory Commission (NRC) by Tennessee Valley Authority (TVA) letter dated May 27, 1988 (Agency Document and Management System Accession Number ML080390551). The NRC staff documented its review and findings concerning the WBNPP in NUREG-1232, Volume 4, "Safety Evaluation Report on Tennessee Valley Authority: Watts Bar Nuclear Performance Plan." In this safety evaluation, the NRC staff found that there were several issues that required additional information before they could complete their review. The NRC staff stated therein that these programs will continue to be reviewed and monitored and NRC would issue a revised evaluation in a supplement to NUREG-0847, "Safety Evaluation Report Related to the Operation of Watts Bar Nuclear Plant, Units 1 and 2." Starting in Supplement 5, a Section on corrective action programs (CAPs) and special programs (SPs) was added to NUREG-0847 to provide the status of TVA's implementation and the status of the NRC staff review.

By letter dated September 6, 1991, the TVA transmitted Revision 1 of the WBNPP to the NRC. The NRC staff concluded in NUREG-0847, Supplement 9 that the revision did not necessitate a revision of NUREG-1232. As reported in NUREG-0847, Supplement 19, all CAPs and SPs were acceptably implemented by the licensee. Supplement 19 also listed all applicable safety evaluations that found these programs acceptable and the inspection reports that verified implementation.

Because the NRC has not issued a safety evaluation for these programs for Watts Bar Nuclear Plant (WBN) Unit 2, the NRC staff had asked TVA to confirm that previous WBNPP submittals for WBN Unit 1 were also applicable to Unit 2. Further, the NRC staff asked TVA to identify any cases where TVA expects to revise a CAP or SP for use on WBN Unit 2 and provide a schedule for submitting justification for the revision to NRC for its review. Therefore, TVA provided, as one of the enclosures to its January 29, 2008, letter, a table giving the status of these programs and TVA commitments for Unit 2. TVA also provided a separate table listing those CAP and SP items requiring NRC review and approval. In this regard, TVA stated that it had evaluated these CAPs and SPs and determined that the Quality Assurance (QA) Records CAP will be resolved using the methodology employed for Unit 1.

ENCLOSURE

Based on discussions with the NRC staff, TVA agreed to supplement the CAP and SP summaries to provide additional information on the status of these programs, basis for proposed action, and impact on other aspects of the licensing framework due to these programs. In a letter, dated September 26, 2008 (ML082750019), TVA provided the summaries of the CAPs and SPs describing the proposed actions, current status of licensing review, analysis of conformance, impact on final safety analysis report, impact on technical specifications and technical requirements manual, items requiring verification and inspection, and interdependencies of these issues.

## 2.0 REGULATORY EVALUATION

On September 17, 1985, the Executive Director for Operations of the NRC issued a letter to the Chairman of the Board of Directors of the TVA pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.54(f) requesting information on the actions the licensee was taking to resolve NRC's concerns about TVA's nuclear program.

TVA's Corporate Nuclear Performance Plan (CNPP), which was prepared in response to the NRC letter, was submitted to the NRC on November 1, 1985. In addition to its CNPP, TVA prepared separate plans to address site-specific problems at each of its nuclear plants. NUREG-1232, Volume 4 documents the NRC staff's review of the corrective actions developed by TVA to resolve problems listed in Volume 4 of the CNPP, "Watts Bar Nuclear Performance Plan (WBNPP)."

## 3.0 TECHNICAL EVALUATION

By letter dated May 15, 1992 (ML073550427), TVA provided Revision 5 of the QA Records CAP for NRC review and approval. By letter dated June 9, 1992, and in Appendix X of NUREG-0847, Supplement 9, "Safety Evaluation Report related to the operation of Watts Bar Nuclear Plant, Units 1 and 2, Docket Nos. 50-390 and 50-391" (ML072060469), the NRC staff approved Revision 5 of the QA Records CAP for WBN Unit 1.

By letter, dated April 6, 1994 (ML073230638), TVA provided Revision 6 of the QA Records CAP for NRC review and approval. By letter, dated April 25, 1994, the NRC staff approved Revision 6 of the QA Records CAP for WBN Unit 1.

In a letter, dated January 29, 2008 (ML080320443), TVA committed to implement the QA Records CAP for WBN Unit 2 with the WBN Unit 1 approach.

In a letter, dated September 26, 2008 (ML082750019), TVA provided the summaries of the CAPs and SPs describing the proposed actions, current status of licensing review, analysis of conformance, impact on final safety analysis report, impact on technical specifications and technical requirements manual, items requiring verification and inspection, and interdependencies of these issues. In a letter, dated February 11, 2009 (ML090210107), the NRC staff asked for clarification of the QA Records CAP. TVA responded in a letter, dated July 10, 2009 (ML091960112).

TVA states that relevant WBN Unit 2 records are similar to WBN Unit 1 records and the same personnel were involved with WBN Unit 1 and WBN Unit 2 records. As a result, TVA concludes that WBN Unit 2 record issues will be similar to WBN Unit 1. TVA further states that based on sampling and subsequent evaluation, procedures were put in place to ensure similar problems would be addressed going forward and that these procedures will be used for WBN Unit 2 activities. TVA concludes that any potential problems with WBN Unit 2 records will be identified and corrected in the process of QA record use within the scope of CAPs, SPs, and other design, modification and construction activities.

TVA plans to statistically sample WBN Unit 2 QA records by type to ensure their retrievability, storage integrity, and completeness to ensure that QA records issues that exist on WBN Unit 2 are identified and corrected in a timely manner. TVA plans to use a smaller initial sample size for WBN Unit 2 than the WBN Unit 1 Additional Systematic Records Review sample. TVA plans to select from the CAPs, SPs, and several other programs being performed for WBN Unit 2, and the sample will include records similar to those for which technical content issues occurred on WBN Unit 1 to provide additional assurance that these issues are adequately addressed for WBN Unit 2.

The NRC staff reviewed and finds acceptable the QA Records CAP for WBN Unit 2 as described in the WBN "Quality Assurance Records Corrective Action Program Plan," Revision 6, dated April 6, 1994 (ML073450660), as supplemented by letters dated January 29, 2008, September 26, 2008, and July 10, 2009. The NRC staff will perform inspections to assure adequate implementation of the QA Records CAP for WBN Unit 2.

#### 4.0 CONCLUSION

The NRC staff concludes that there is reasonable assurance that, when implemented as described, the QA Records CAP will be appropriately resolved for WBN Unit 2. Use of the WBN Unit 1 approach and the sampling plan described in TVA's letter, dated July 10, 2009, is acceptable.

Principle Contributor: John G. Lamb

Date: September 8, 2009

Mr. Ashok Bhatnagar  
Senior Vice President  
Nuclear Generation Development  
and Construction  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 2 – SAFETY EVALUATION INPUT  
REGARDING QUALITY ASSURANCE RECORDS CORRECTIVE ACTION  
PROGRAM (TAC NO. ME2168)

Dear Mr. Bhatnagar:

By letter dated January 29, 2008 (ADAMS Accession No. ML080320443), as supplemented by letters dated September 26, 2008 (ADAMS Accession No. ML082750019), and July 10, 2009 (ADAMS Accession No. ML091960112), the Tennessee Valley Authority (TVA) submitted an application for approval of the Quality Assurance Records Corrective Action Program for Watts Bar Nuclear Plant, Unit 2.

The staff has reviewed TVA's application including the supplemental letters and find them acceptable. Enclosed is the staff's safety evaluation completing the staff's efforts for TAC No. ME2168.

If you have any questions regarding this issue, please feel free to contact John G. Lamb at (301) 415-3100.

Sincerely,

/RA/

L. Raghavan, Senior Project Manager  
Watts Bar Special Projects Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-391  
Enclosure: As stated

DISTRIBUTION:

PUBLIC

RidsNRRDorlLpwb  
RidsAcrsAcnw\_MailCTR Resouce  
Lpwb r/f

RidsRgn2MainCenter Resource  
RidsNrrPMWattsBar2 Resource  
RidsNrrLaBClayton

ADAMS ACCESSION NO: ML092320707

\*via e-mail

OFFICE	DORL/WBSP/PM	DORL/WBSP/LA	RII	DORL/WBSP/BC
NAME	JLamb	BClayton	RHaag *	LRaghavan
DATE	09/ 08 /09	09/ 08 /09	08/ 19 /09	09/08 /09

OFFICIAL RECORDS COPY