



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

June 17, 2011

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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 - TRANSMITTAL OF  
QUALITY ASSURANCE (QA) ASSESSMENT REPORT NGDC-WB-11-007,  
LICENSING BASIS PRESERVATION**

The purpose of this letter is to transmit the enclosed report (Enclosure 1) that contains the results of the QA assessment of effectiveness of the WBN Unit 2 Licensing Basis Preservation self-assessment, as requested by NRC during the daily WBN Unit 2 Project Status telecom. The assessment results indicate the Licensing Basis self-assessment was effective and performed in accordance with governing procedures. Licensing will do a periodic review of licensing written corrective action plans (CAP) and schedule a focused self-assessment to ensure that the CAP specified in PER 239111 is implemented effectively as recommended in the assessment report.

Enclosure 2 contains the Regulatory Commitments contained in this letter. If you have any questions, please contact William Crouch at (423) 365-2004.

Respectfully,

David Stinson  
Watts Bar Unit 2 Vice President

Enclosures:

1. WBN Unit 2 - Quality Assessment - NGDC-WB-11-007 - Licensing Basis Preservation
2. Regulatory Commitments

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cc (Enclosures):

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**ENCLOSURE 1**

**WATTS BAR NUCLEAR PLANT (WBN) UNIT 2**

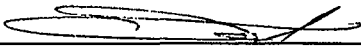
**WBN Unit 2 - Quality Assessment - NGDC-WB-11-007 - Licensing Basis Preservation**

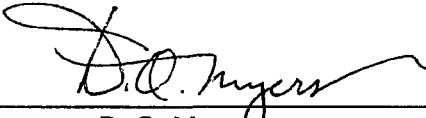
TENNESSEE VALLEY AUTHORITY  
WATTS BAR NUCLEAR PLANT (WBN) UNIT 2  
QUALITY ASSURANCE (QA) ASSESSMENT - NGDC-WB-11-007  
LICENSING BASIS PRESERVATION

Assessment Dates: April 27 - May 16, 2011

Team Members

C. K. Tudor - Team Lead Assessor

Prepared by:  Date: 6-14-11  
C. K. Tudor

Approved by:  Date: 06/14/11  
D. O. Myers

## Watts Bar Nuclear Construction Completion Project

Assessment Report NGDC-WB-11-007

### LICENSING BASIS PRESERVATION

#### **EXECUTIVE SUMMARY:**

##### **Purpose, Scope:**

The purpose of the assessment was to determine the effectiveness of the Licensing Basis Preservation Self-Assessment LIC-2010-001.

The assessment scope included documentation related to: Engineering Document Construction Releases (EDCR) and Design Criteria. In addition, the two Problem Evaluation Reports (PERs) issued initially as a result of the Licensing self-assessment were evaluated.

##### **Overall Conclusion:**

The assessment results indicate the Licensing Basis self-assessment was effective and performed in accordance with governing procedures. However, one issue related to the identification of a potential Licensing Basis change was not evaluated consistent with the procedure. As a result, the required licensing review was not performed.

##### **General:**

EDCR procedure 25402-3DP-G04G-00081 requires that changes to Unit 2 be evaluated to ensure the design fully complies with all design standards, processes and general specifications used for construction of Unit 1 or that the design is functionally equivalent to Unit 1. Appendix J of the procedure provides instruction for completion of the Attachment J evaluation form.

##### **Results:**

This assessment reviewed a selection of EDCRs previously reviewed by the self-assessment as well as the associated Attachment J forms. One of the EDCRs reviewed (54182) called into question the adequacy of screening question 1C engineering responses. Attachment J 1C requests the reviewer to answer "YES" if all design standards, processes or general specifications were fully met. EDCR 54182 documented that exceptions were taken and should have been marked "NO" as opposed to the documented answer "YES"; as a result of this error, no Unit 2 Bechtel Engineering Licensing review was performed to evaluate a potential Licensing Basis Change as described in the framework letter. Watts Bar Design Criteria WDC-30-4, Section 4.1.2.4 was taken exception to for Unit 2 only to allow Non-GSPS (Generating Station Protection System) cable to be run in conduit used by GSPS circuits. (Service Request 384921)

The licensing self-assessment identified two deficiencies. These were documented in PERs 239112 and 239111. PER 239112 was written to address the failure to update Attachment J after any Field Change Requests (FCR) were issued on an EDCR. The CAP was reviewed and found unacceptable because no actions were taken to ensure FCRs remain bounded by the original Attachment J evaluations (Service Request 384876). PER 239111 was considered acceptable.

The Licensing personnel interviewed as part of this assessment were not aware that the deficiency documented in PER 239112 of the self-assessment was not corrected. QA recommends a periodic review of licensing-written PERs to ensure timely and acceptable closure. This could be accomplished by a CAP action to require licensing concurrence to the approved CAP.

In addition, QA recommends that Licensing schedule a focused self-assessment to ensure that the CAP specified in PER 239111 is implemented effectively.

Other Insights:

Other insights associated with the review of Attachment J and Appendix J:

1. Attachment J screening question 1b asks the evaluator "Is the design functionally equivalent to that of Unit 1?" Appendix J provides the evaluator a guideline for completion of Attachment J, and as such no guidance is provided for determining functionality.
2. An editorial correction is required to Appendix J which references Project Procedure NGDC PP-20, Attachments 1-9. These attachments were deleted in Revision 1 to this procedure on October 21, 2010; and as such, action required by Appendix J cannot be performed as written.
3. NGDC PP-20 Revision 1 provides no direction as to the evaluation criteria for "Functionally Equivalent to that of Unit 1." Attachment J requires the evaluator to provide the basis for the "Yes" or "No" answer; the majority of the EDCR Attachment J forms reviewed did not document the critical thinking to support conclusions.

**ENCLOSURE 2**

**WATTS BAR NUCLEAR PLANT (WBN) UNIT 2**

Regulatory Commitments

1. Licensing will do a periodic review of licensing written corrective action plans (CAP)
2. Licensing will schedule a focused self-assessment to ensure that the CAP specified in PER 239111 is implemented effectively as recommended in the assessment report.