



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

September 1, 2011

10 CFR 50.34

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 - AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) BOILER AND PRESSURE VESSEL CODE TRANSITION - REVISED COMMITMENT**

- References:
1. TVA letter to NRC dated October 11, 2010, "Watts Bar Nuclear Plant (WBN) Unit 2 - Transition from American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Section III Division I to Section XI"
  2. NRC letter to TVA dated August 12, 2011, "Watts Bar Nuclear Plant, Unit 2 - Transition of Components to American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI (TAC NO. ME0853)"

The purpose of this letter is to revise a paragraph and embedded previous commitment contained in Reference 1 which reads as follows:

"ASME Section XI Repair and replacement shall be documented on Form NIS-2 and NIS-2A per IWA-6230, IWA-6240, or Code Case N-532-4. An Owners Summary Report shall be issued within 90 days following Unit 2 commercial operation for those repairs or replacements, if any, which were performed under Section XI on Unit 2 prior to commercial operation."

In Reference 2, the NRC staff paraphrased/summarized a portion of Reference 1 by stating that:

"In its letter, TVA stated the ASME Section XI repair and replacement will be documented on Form NIS-2 and NIS-2A per ASME Section XI subsections IWA-6230 or ASME Code Case N-532-4 and included with the preservice inspection summary report prepared prior to commercial operation. TVA stated that it would issue an Owners Summary Report to the NRC within 90 days following Unit 2 commercial operation for those repairs or replacements, if any, which were performed under Section XI on Unit 2 prior to commercial operation.

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However, in accordance with ASME Section XI, subsection IWA-6240, the preservice inspection summary report shall be submitted prior to the date of placement of the unit into commercial service. TVA needs to reconcile this potential nonconformance with ASME Section XI." [Underlines added for emphasis]

The above NRC statement does not accurately reflect TVA's intended report filing of the preservice inspection report and the inservice inspection report (i.e., they are two separate reports with different filing requirements). TVA does acknowledge that Reference 1 contained a potential nonconformance with ASME Section XI for the time of filing the inservice inspection Owners Summary Report and will correct that as explained below. The timing for these two reports is clarified below.

Per ASME Section XI, Section 2001 Edition, 2003 Addenda, IWA 6240(a), the preservice inspection summary report shall be submitted prior to the date of placement of the unit into commercial service. Per ASME Section XI 2001 Edition, 2003 Addenda, IWA 6240(b), the inservice inspection summary report shall be submitted within 90 calendar days of the completion of the refueling outage.

As described in Reference 1, TVA is constructing WBN Unit 2 under the jurisdiction of ASME Section III and will transfer jurisdiction to the ASME Section XI and ASME OM Codes for each system upon completion of an N-5 Code data report for that system. ASME Section XI requires a preservice inspection of components installed under either Section III or Section XI. The preservice inspection report will document the preservice inspection of work performed prior to initial plant startup under either Section III or Section XI in accordance with ASME Section XI, Subparagraph IWB-2200(a), IWC-2200(a), and IWD-2200. See the below discussion regarding the definition of "prior to initial plant startup."

ASME Section XI, Subparagraph IWA-6240(b) requires the inservice inspection summary report to be submitted within 90 calendar days of the completion of each refueling outage. This requirement related to completion of a refueling outage does not provide clear guidance for initial startup of a new plant; therefore, TVA provides the following interpretation. For operating plants, TVA defines completion of a refueling outage as Turbine Generator synchronization; therefore, for the purpose of ASME inspections of an initial cycle, TVA will define completion of Unit 2 as initial Turbine Generator synchronization following criticality.

The initial (i.e., pre-startup) WBN Unit 2 Owners Summary Report will contain the ASME Section XI inservice inspection report for work performed between the time the hardware is transitioned from ASME Section III to Section XI and the time of initial Turbine Generator synchronization following criticality. In order to eliminate confusion, TVA will utilize this same ending milestone (i.e., initial Turbine Generator synchronization following criticality) to define "prior to initial plant startup" for the purposes of the preservice inspection activities.

Based on the combination of this TVA definition and ASME Section XI, Subparagraph IWA-6240(a), the preservice inspection report shall be submitted prior to the placement of the unit into commercial operation. Based on the combination of this TVA definition and ASME Section XI, Subparagraph IWA-6240 (b), TVA shall submit the inservice inspection summary report within 90 days of initial Turbine Generator synchronization following criticality.

Therefore, TVA revises/expands the previous commitment to read as follows:

“The preservice inspection report for ASME work performed prior to initial Turbine Generator synchronization following criticality shall be submitted prior to the placement of the unit into commercial operation.

The initial inservice inspection report shall be issued within 90 days following initial Unit 2 Turbine Generator synchronization following criticality for those repairs or replacements, if any, which were performed under Section XI on Unit 2.”

In addition, NRC stated in Reference 2 that “the NRC expects that TVA will assign the start date of its inservice inspection and testing programs to coincide with the completion of all system transitions and the filing of the complete N-3 Data Report, which will be made available at the NRC’s request.” TVA notes that this expectation is not in conformance with ASME Section XI, IWA-2430(b) and ASME OM ISTA-3120(b). In accordance with ASME Section XI, IWA-2430(b) and ASME OM ISTA-3120(b), the inservice inspection and inservice test intervals will be determined by calendar years following placement of the plant into commercial service. TVA recognizes the apparent discrepancy in the ASME Section XI requirements which results in a period of time that is not explicitly addressed (i.e., IWA-2430(b) inservice inspection period starts at commercial operation versus the above TVA commitment defining initial inservice inspection period ending at initial Turbine Generator synchronization following criticality). The Section XI Code does not address inservice inspection requirements for the timeframe between filing of the N-3 Data Report and commercial operation. Likewise, the ASME OM Code does not address the time between Turbine Generator synchronization following criticality (i.e., the end of the preservice test period) and commercial operation (i.e., the start of the initial IST interval). For WBN Unit 2, the use of “initial Turbine Generator synchronization following criticality” as the ending boundary for the initial inservice inspection report and preservice test period, and commercial operation as the beginning of the IWA-2430(b) inservice inspection and ISTA-3120(b) inservice test intervals, will minimize the undefined timeframe.

The inservice test program will begin for individual components when their construction code requirements are completed (i.e., N-5 report completed) and they are required to be operable. This will be in the preservice test period prior to the Initial IST Ten Year Interval, which will begin with commercial operation, as required by the ASME OM Code. TVA plans to submit its inservice inspection and inservice testing programs by separate correspondence.

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If you should have any questions, please contact Bill Crouch at (423) 365-2004.

Respectfully,



David Stinson  
Watts Bar Unit 2 Vice President

Enclosure: List of Commitments

cc (Enclosure):

U. S. Nuclear Regulatory Commission  
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## ENCLOSURE

### List of Commitments

1. The preservice inspection report for ASME work performed prior to initial Turbine Generator synchronization following criticality shall be submitted prior to the placement of the unit into commercial operation.
2. The initial inservice inspection report shall be issued within 90 days following initial Unit 2 Turbine Generator synchronization following criticality for those repairs or replacements, if any, which were performed under Section XI on Unit 2.
3. The inservice test program will begin for individual components when their construction code requirements are completed (i.e., N-5 report completed) and they are required to be operable. This will be in the preservice test period prior to the Initial IST Ten Year Interval, which will begin with commercial operation, as required by ASME OM Code, ISTA-3120(b). TVA plans to submit its inservice inspection and inservice testing programs by separate correspondence.