

## WBN2Public Resource

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**From:** Boyd, Desiree L [dlboyd@tva.gov]  
**Sent:** Wednesday, July 27, 2011 10:26 AM  
**To:** Epperson, Dan; Poole, Justin; Raghavan, Rags; Milano, Patrick; Campbell, Stephen  
**Cc:** Crouch, William D; Hamill, Carol L; Boyd, Desiree L  
**Subject:** TVA letter to NRC\_2011-07-27\_Response FSAR 12 RAI  
**Attachments:** 2011-07-27\_Response FSAR 12 RAI\_Final.pdf

*Please see attached TVA letter that was sent to the NRC today.*

*Thank You,*

~\*~\*~\*~\*~\*~\*~\*~\*~\*

*Desirée L. Boyd*

**WBN 2 Licensing Support**

**Sun Technical Services**

[dlboyd@tva.gov](mailto:dlboyd@tva.gov)

423-365-8764

**Hearing Identifier:** Watts\_Bar\_2\_Operating\_LA\_Public  
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**Subject:** TVA letter to NRC\_2011-07-27\_Response FSAR 12 RAI  
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**Received Date:** 7/27/2011 10:26:08 AM  
**From:** Boyd, Desiree L

**Created By:** dlboyd@tva.gov

**Recipients:**

"Crouch, William D" <wdcrouch@tva.gov>  
Tracking Status: None  
"Hamill, Carol L" <clhamill@tva.gov>  
Tracking Status: None  
"Boyd, Desiree L" <dlboyd@tva.gov>  
Tracking Status: None  
"Epperson, Dan" <Dan.Epperson@nrc.gov>  
Tracking Status: None  
"Poole, Justin" <Justin.Poole@nrc.gov>  
Tracking Status: None  
"Raghavan, Rags" <Rags.Raghavan@nrc.gov>  
Tracking Status: None  
"Milano, Patrick" <Patrick.Milano@nrc.gov>  
Tracking Status: None  
"Campbell, Stephen" <Stephen.Campbell@nrc.gov>  
Tracking Status: None

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July 27, 2011

10 CFR 50.4(b)(6)  
10 CFR 50.34(b)

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 - FINAL SAFETY ANALYSIS  
REPORT (FSAR) - RESPONSE TO CHAPTER 12 REQUEST FOR  
ADDITIONAL INFORMATION (RAI)**

- References:
1. TVA letter to NRC dated February 25, 2011, "Watts Bar Nuclear Plant (WBN) Unit 2 - Final Safety Analysis Report (FSAR) - Response to Chapters 11 and 12 Request for Additional Information"
  2. NRC letter to TVA dated August 27, 2010, "Watts Bar Nuclear Plant (WBN) - Unit 2 - Request for Additional Information Regarding Licensee's Final Safety Analysis Report Amendment Related to Chapters 11, 'Radioactive Waste Management' and 12, 'Radiation Protection' (TAC No. ME2731)"

The purpose of this letter is to provide a commitment to update Unit 2 FSAR Section 12.3.4.1.3, "Area Monitor Calibration and Maintenance," based on agreements as to content in a TVA-NRC meeting held on July 25, 2011, in Rockville, Maryland. Enclosure 1 provides an advance copy of this FSAR section with the revised wording. This change will be included in a future FSAR amendment.

Prior to this meeting, TVA had planned to provide a revised response to Question 24 provided in Reference 1 and to respond to RAI number 8, containing five parts, previously received in Reference 2. However, based on meeting discussions, coupled with the need to provide an update to the above FSAR section, the need to respond to these RAIs has been superseded.

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Enclosure 2 provides the list of commitments provided in this letter.

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

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 27<sup>th</sup> day of July, 2011.

Respectfully,

A handwritten signature in black ink, appearing to read 'David Stinson', with a stylized flourish at the end.

David Stinson  
Watts Bar Unit 2 Vice President

Enclosures:

1. Updated FSAR Section 12.3.4.1.3
2. List of Commitments

cc (Enclosures):

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

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bcc (Enclosures):

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

Charles Casto, Deputy Regional Administrator for Construction  
U. S. Nuclear Regulatory Commission  
Region II  
Marquis One Tower  
245 Peachtree Center Ave., NE Suite 1200  
Atlanta, Georgia 30303-1257

**Enclosure 1**

**Watts Bar Nuclear Plant**

**Updated FSAR Section 12.3.4.1.3, "Area Monitor Calibration and Maintenance"**

area monitors employ Geiger-Mueller type gamma detectors. Each detector has its own independent high-voltage power supply located on panel 0-M-12 or 1-,2-M-30 in the main control room.

The Reactor Building upper and lower compartment post accident monitors are redundant high range monitors which are required to meet the requirements of RG 1.97 and NUREG-0737.

### **12.3.4.1.2.2 Main Control Room Ratemeter (0-M-12, 1-,2-M-30)**

Ratemeters are of solid-state construction containing a solid-state, high-voltage power supply. Alarms are provided on the ratemeter chassis for high radiation and instrument malfunction. Visual and audible alarms are provided for high radiation and instrument malfunction in the main control room.

### **12.3.4.1.2.3 Local Indicator-Alarm Panel**

With the exception of the main control room and Reactor Building upper and lower compartment post accident monitors, each monitor has a locally mounted panel which contains an indicator, a visual and audible high radiation alarm, and a power-on light.

### **12.3.4.1.2.4 Multipoint Recorders (Main Control Room 0-M-12, 1-,2-M-31)**

The area monitors, with the exception of the Reactor Building upper and lower compartment post accident monitors, are recorded on multipoint recorders on panel 0-M-12, which is in the MCR. The upper and lower compartment post accident monitors are input to the Integrated Computer System (ICS) for recording purposes.

### **12.3.4.1.2.5 Monitor Sensitivity and Range**

The ranges of the instrumentation provided are given in Table 12.3-4. The area monitors set points, adjustable over the entire range, are determined by the radiation control group based on operating background levels. The setpoints for the Reactor Building upper and lower compartment post accident monitors are determined by engineering analysis.

### **12.3.4.1.3 Area Monitor Calibration and Maintenance**

With the exception of the Reactor Building upper and lower compartment post accident monitors, periodic testing of each area monitor includes a channel calibration performed at least once per 22.5 months (18 months plus 25%), and a channel operational test (COT) performed every 3 months, or at a frequency established by analysis of calibration history to ensure performance with a 95% probability at a 95% confidence level. Monitor testing is performed in accordance with licensing or TVA program requirements (Technical Specifications, Offsite Dose Calculation Manual (ODCM), or the TVA calibration program). Testing of the Reactor Building upper and lower compartment post accident monitors is performed in accordance with the Technical Specifications.

## **Enclosure 2**

### **List of Commitments**

The purpose of this letter is to provide a commitment to update Unit 2 FSAR Section 12.3.4.1.3, "Area Monitor Calibration and Maintenance," based on the agreements as to content in a TVA-NRC meeting held on July 25, 2011, in Rockville, Maryland. This change will be included in a future FSAR amendment.