

**WBN2Public Resource**

---

**From:** Boyd, Desiree L [dlboyd@tva.gov]  
**Sent:** Wednesday, October 17, 2012 6:57 AM  
**To:** Epperson, Dan; Wilson, George; Poole, Justin  
**Cc:** Arent, Gordon; Hamill, Carol L; Boyd, Desiree L  
**Subject:** TVA letter to NRC\_10-16-12\_SAMA Commitment  
**Attachments:** 10-16-12\_SAMA Commitment\_Final.pdf

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

*Thank You,*

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

*Desiree L. Boyd*

*WBN Unit 2 Licensing*

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

*423-365-8764*

**Hearing Identifier:** Watts\_Bar\_2\_Operating\_LA\_Public  
**Email Number:** 753

**Mail Envelope Properties** (7AB41F650F76BD44B5BCAB7C0CCABFAF346C4DDE)

**Subject:** TVA letter to NRC\_10-16-12\_SAMA Commitment  
**Sent Date:** 10/17/2012 6:57:03 AM  
**Received Date:** 10/17/2012 6:57:06 AM  
**From:** Boyd, Desiree L

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

**Recipients:**

"Arent, Gordon" <garent@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  
"Wilson, George" <George.Wilson@nrc.gov>  
Tracking Status: None  
"Poole, Justin" <Justin.Poole@nrc.gov>  
Tracking Status: None

**Post Office:** TVANUCXVS2.main.tva.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	274	10/17/2012 6:57:06 AM
10-16-12_SAMA Commitment_Final.pdf		87123

**Options**

**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** Yes  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**



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

October 17, 2012

10 CFR § 50.4

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 – SEVERE ACCIDENT  
MANAGEMENT ALTERNATIVE (SAMA) REVIEW (TAC NO. MD8203)**

Reference: TVA letter dated January 31, 2011, “Watts Bar Nuclear Plant (WBN) –  
Unit 2 – Request for Additional Information Regarding Severe Accident  
Management Alternative Review (TAC No. MD8203)”

The purpose of this letter is to modify commitment 9 in Enclosure 2 of the reference. This commitment stated the following:

For SAMA 293 and SAMA 294, the identified carbon steel piping is currently planned to be replaced with stainless steel piping. This was the reason these SAMAs were dispositioned as already committed to implement. However, the lower leak frequencies corresponding to stainless steel piping were incorporated in the October 2010 SAMA model, and these two flood scenarios still contributed to CDF significantly. Rerouting of the pipes outside the areas was impractical due to interferences in the area. Therefore, flood detection is also currently planned to be installed at WBN for areas 772.0-A8 and 772.0-A9. Flood detection in these areas will permit the operators to recognize that isolation of the break is needed and to take action if needed. (RAI 4.f Response)

TVA is revising its commitment to provide flood detection and piping change from carbon to stainless steel in the WBN Auxiliary Building areas 772.0-A8 and 772.0-A9 to only providing flood detection in those areas.

The rationale for revising the prior commitment came from a bounding evaluation of the change in core damage frequency (CDF) for multiple electrical board areas including the specified areas showing that changing both the pipe material and the addition of flood detection equipment provided a very small increase in benefit as compared to the change

U.S. Nuclear Regulatory Commission  
Page 4  
October 17, 2012

in risk from either modification by itself. A change from carbon steel to stainless steel piping would be expected to reduce the CDF by about  $1.5E-5/yr$ . The addition of flood detection alone would result in an expected CDF reduction of approximately  $1.6E-5/yr$ . The expected CDF reduction from taking both actions is approximately  $1.7E-5/yr$ . Therefore, TVA determined that installation of flood detection sufficiently reduced CDF without replacement of the existing piping.

There are no new regulatory commitments contained in this letter. If you have any questions, please contact Gordon Arent at (423) 365-2004.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 17<sup>th</sup> day of October, 2012.

Respectfully,



Raymond A. Hruby, Jr.  
General Manager, Technical Services  
Watts Bar Unit 2

cc: 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

U.S. Nuclear Regulatory Commission  
Page 4  
October 17, 2012

bcc: Jessie Quichocho  
U.S. Nuclear Regulatory Commission  
MS 08G9A  
One White Flint North  
11555 Rockville Pike  
Rockville, Maryland 20852-2738

Fred Brown, 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