



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

April 9, 2010

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 - Response to U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information Regarding Licensee's Final Safety Analysis Report (FSAR) Amendment Related to Section 4.2.2, "Reactor Vessel Internal Components" (TAC NO. ME2731)**

- References:
1. NRC letter to TVA dated March 11, 2010, "Watts Bar Nuclear Plant, Unit 2 - Request for Additional Information Regarding Licensee's Final Safety Analysis Report Amendment Related to Section 4.2.2, 'Reactor Vessel Internal Components' (TAC NO. ME2731)"
  2. TVA letter to NRC dated November 24, 2009, "Watts Bar Nuclear Plant (WBN) - Unit 2 - Final Safety Analysis Report (FSAR), Amendment 95"
  3. TVA letter to NRC dated December 14, 2009, "Watts Bar Nuclear Plant (WBN) - Unit 2 - Final Safety Analysis Report (FSAR), Amendment 96"
  4. TVA letter to NRC dated January 11, 2010, "Watts Bar Nuclear Plant (WBN) - Unit 2 - Final Safety Analysis Report (FSAR), Amendment 97"


The purpose of this letter is to respond to the NRC request for additional information (Reference 1) regarding material used for the Reactor Vessel Internals (RVI) at WBN Unit 2. In references 2, 3, and 4, TVA submitted WBN Unit 2 FSAR Amendments 95, 96, and 97, respectively, which provided RVI design bases, design loading conditions, design loading categories and various materials used for the RVI components. Enclosure 1 provides the NRC request for additional information and TVA's responses. Enclosure 2 identifies the action committed to by TVA in this letter.

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If you have any questions, please contact me at (423) 365-2351.

Sincerely,

  
Masoud Bajestani  
Watts Bar Unit 2 Vice President

Enclosures:

1. Responses to NRC Request for Additional Information Regarding RVI Material
2. List of Regulatory Commitments

cc (Enclosures):

U. S. Nuclear Regulatory Commission  
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## Enclosure 1

### Response to Request for Additional Information Regarding Reactor Vessel Internal Material

Tennessee Valley Authority  
Watts Bar Nuclear Plant - Unit 2, Docket No. 50-391

#### NRC Request

*In Table 5.2-12 of Section 5.0 of the Watts Bar, Unit 2 FSAR, TVA indicated that Alloy X-750 bolting is used in its RVI components. In this context, the staff requests that the license provide information regarding the type of heat treatment that was performed on Alloy X-750 material.*

#### TVA Response

In regard to Table 5.2-12 of Section 5.0 of WBN Unit 2 FSAR, it is indicated that Alloy X-750 bolting is used in reactor vessel internal components in only the lower radial support clevis bolts. The bolts are heat-treated to a "BH" specification.

#### NRC Request

*... if the HTH process was not used for Alloy X-750 materials, provide information regarding whether these materials should be replaced prior to operation to mitigate the potential for failure due to SCC.*

#### TVA Response

As stated in the above response, the HTH process was not used for the Alloy X-750 bolting material. The impact of this condition is currently being reviewed by Westinghouse. Following receipt of the Westinghouse recommended plan for resolution, TVA will provide the plan to the NRC by June 30, 2010.

## Enclosure 2

### List of Regulatory Commitments

Commitment Text	Due Date
As stated in the above response, the HTH process was not used for the Alloy X-750 bolting material. The impact of this condition is currently being reviewed by Westinghouse. Following receipt of the Westinghouse recommended plan for resolution, TVA will provide the plan to the NRC by June 30, 2010.	June 30, 2010