

## **NRR-PMDAPEm Resource**

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**From:** Lingam, Siva  
**Sent:** Friday, August 16, 2013 8:02 AM  
**To:** Hess, Thomas A (tahess@tva.gov); jcjones@tva.gov  
**Cc:** Broaddus, Doug; Poole, Justin; Saba, Farideh; Stevens, Gary; Parks, Benjamin; Rosenberg, Stacey; Jackson, Christopher; Schrull, Edward D (edschrull@tva.gov)  
**Subject:** Browns Ferry, Unit 1 Exigent Amendment - Administrative Changes to Remove the Notes on TS Figures 3.4.9-1 and 3.4.9-2 (P-T Curves) (TAC No. MF2564) - Request for Additional Information (RAI)

Please respond to the following **official** RAIs on the subject exigent amendment. If you need our approval on this request by September 19, 2013, we request you to provide the RAI acceptable responses as early as possible.

REQUEST FOR ADDITIONAL INFORMATION REGARDING  
TENNESSEE VALLEY AUTHORITY'S  
LICENSE AMENDMENT REQUEST UNDER EXIGENT CIRCUMSTANCES  
FOR THE ADMINISTRATIVE CHANGE TO REMOVE THE NOTES  
ON TECHNICAL SPECIFICATION FIGURES 3.4.9-1 AND 3.4.9-2  
FOR BROWNS FERRY NUCLEAR PLANT, UNIT 1  
DOCKET NO. 50-259 (TAC NO. MF2564)

The Nuclear Regulatory Commission (NRC) staff has reviewed the information provided by Tennessee Valley Authority (TVA, the licensee) for Browns Ferry Nuclear Plant, Unit 1 (BFN-1) in its letter dated August 14, 2013, and has determined that additional information is necessary to complete the review of TVA's License Amendment Request (LAR).

Based on the staff's review of TVA's LAR, please provide responses which address the following requests:

### **RAI 1**

In the LAR, TVA refers to the non-proprietary report, NEDO-33112, "Pressure-Temperature Curves for TVA Browns Ferry Unit 1" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML043440231), for a description of the fluence calculations. The first paragraph of Section 1.0, "Introduction," of NEDO-33112 states, "*This report incorporates a fluence calculated in accordance with the GE Licensing Topical Report NEDC-32983P, which has been approved by the NRC in a SER [14], and is in compliance with Regulatory Guide 1.190. This fluence represents an Extended Power Uprate (EPU) for the rated power of 3952 MW<sub>t</sub>.*"

Verify whether the 3,952 MW<sub>t</sub> power level was assumed for the entire 16 effective full power years (EFPY) exposure period for BFN-1, and verify that NEDC-32983P was the only method used to determine the reactor vessel neutron fluence over the 16 EFPY operating period for BFN-1.

### **RAI 2**

Section IV of Appendix H, "Reactor Vessel Material Surveillance Program Requirements," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," specifies requirements for reporting of test results for capsules withdrawn from the reactor pressure vessel (RPV) in accordance with an approved RPV materials surveillance program. Those requirements specify that summary test reports are due within one year after the date of capsule withdrawal unless an extension is granted by the Director, Office of Nuclear Reactor Regulation (NRR), and if a change in the Technical Specifications is required, either in the pressure-temperature (P-T) limits or in the operating procedures required to meet the limits, the expected date for submittal of the revised Technical Specifications must be provided with the report. NRC is aware that a capsule was removed for testing from BFN Unit 2 in February 2010, and a summary test report is available as EPRI Technical Report 3002000078, "BWRVIP-271NP: BWR Vessel and Internals Project, Testing and Evaluation of the Browns Ferry Unit 2 120° Capsule," April 2013 (ADAMS Accession No. ML13227A353). NRC is also aware that the test results from the BFN Unit 2 120° capsule are applicable to BFN-1 per the Boiling Water Reactor Vessel and Internals Project (BWRVIP) Integrated Surveillance Program (ISP), as documented in EPRI Technical Report 1025144NP, "BWRVIP-86NP, Revision 1-A: BWR Vessel and Internals Project, Updated BWR Integrated Surveillance Program (ISP) Implementation Plan," May 2013 (ADAMS Accession No. ML13176A097).

Provide an evaluation of the impact of the BFN Unit 2 120° capsule test results on the 16 EFPY P-T curves for BFN-1 included in TVA's LAR.

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**Sent Date:** 8/16/2013 8:02:20 AM

**Received Date:** 8/16/2013 8:02:00 AM

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MESSAGE	4129	8/16/2013 8:02:00 AM

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