



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

September 6, 2013

10 CFR 50.90
10 CFR 50.91

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Browns Ferry Nuclear Plant, Unit 1
Renewed Facility Operating License No. DPR-33
NRC Docket No. 50-259

Subject: Tennessee Valley Authority Response to Request for Additional Information Regarding 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

- References:
1. Letter from TVA to NRC, "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," dated August 14, 2013
 2. Electronic Mail from NRC to TVA, "Browns Ferry Unit Exigent amendment additional RAI, " forwarding "Request for Additional Information Regarding Tennessee Valley Authority's License Amendment Request Under Exigent Circumstances 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)," dated September 3, 2013

On August 14, 2013, the Tennessee Valley Authority (TVA) submitted an application under exigent circumstances (Reference 1) to the Nuclear Regulatory Commission (NRC) to remove the Notes from the Browns Ferry Nuclear Plant, Unit 1, Technical Specification Figures 3.4.9-1 and 3.4.9-2 in accordance with the provisions of Title 10 of the Code of Federal Regulations (10 CFR) 50.90. By NRC electronic mail dated September 3, 2013 (Reference 2), the NRC forwarded to TVA a Request for Additional Information (RAI) regarding the Reference 1 submittal. Due to the exigent nature of the TVA license amendment request, the response was requested to be provided as soon as possible.

The enclosure to this letter provides the TVA response to the NRC RAI.


DO30
HLL

U. S. Nuclear Regulatory Commission
Page 2
September 6, 2013

There are no regulatory commitments associated with this transmittal. Please direct any questions concerning this matter to Mr. Edward D. Schrull at (423) 751-3850.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on the 6th day of September 2013.

Respectfully,



J. W. Shea
Vice President Nuclear Licensing

Enclosure: TVA Response to NRC Request for Additional Information

cc (Enclosure):

NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Browns Ferry Nuclear Plant
State Health Officer, Alabama State Department of Public Health

ENCLOSURE

TVA Response to NRC Request for Additional Information

NRC Request for Additional Information (RAI) 3

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, in part, 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.

By letter dated August 14, 2008 (ADAMS Accession No. ML081760567), the NRC issued Amendment No. 273 to Renewed Facility Operating License No. DPR-33 for the BFN-1 that allowed utilization of the BWR Vessel and Internals Project (BWRVIP) Integrated Surveillance Program (ISP) at BFN-1. The most recent implementation plan for the BWRVIP ISP is documented in EPRI Technical Report No. 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).

During a conference call on August 29, 2013, the licensee stated that the BWRVIP ISP indicates that representative surveillance material source capsule data from the following test reports are applicable to BFN-1:

- *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).*
- *EPRI Technical Report 1021553, "BWRVIP-87NP, Revision 1: BWR Vessel and Internals Project, Testing and Evaluation of BWR Supplemental Surveillance Program Capsules D, G, and H," August 2010 (ADAMS Accession No. ML080770344).*
- *EPRI Technical Report 1021554, "BWRVIP-111NP, Revision 1: BWR Vessel and Internals Project: Testing and Evaluation of BWR Supplemental Surveillance Program Capsules E, F and I," August 2010 (ADAMS Accession No. ML080780267).*
- *EPRI Technical Report 1021556, "BWRVIP-169NP: BWR Vessel and Internals Project, Testing and Evaluation of BWR Supplemental Surveillance Program (SSP) Capsules A, B, and C," August 2010 (ADAMS Accession No. ML071510579).*

Identify whether the test results from these four test reports have an impact on the 16 EFPY P-T curves for BFN-1 included in TVA's LAR. If there is an impact on the P-T limits or in the operating procedures required to meet the limits for BFN-1, please explain the impact and identify the expected date for submittal of revised Technical Specifications that will address the impact. If there is no impact on the P-T limits or in the operating procedures required to meet the limits for BFN-1, please explain why.

TVA Response

As stated in the August 29, 2013, conference call, the capsule data test results contained in BWRVIP-87NP Revision 1, BWRVIP-111NP Revision 1, BWRVIP-169NP, and BWRVIP-271NP are applicable to the Browns Ferry Nuclear Plant (BFN), Unit 1. A review performed in 2008 of the capsule data test results confirmed that the existing 16 Effective Full Power Years (EFPY) P-T curves in the BFN, Unit 1, Technical Specifications, and the operating procedures required to meet these P-T limits for BFN, Unit 1, are not impacted in a non-conservative manner. In addition, Table 5-2 of BWRVIP-271NP, which provides a comparison of actual versus predicted embrittlement, shows that the measured shift (43.2°F) of the BFN, Unit 2, Plate (which is applicable to BFN, Unit 1) is approximately two-thirds of the NRC Regulatory Guide 1.99 Revision 2 predicted shift plus margin (i.e., 65.43°F). Therefore, the BFN, Unit 1, Technical Specification P-T curves contained in the Tennessee Valley Authority License Amendment Request are valid to 16 EFPY, i.e., no change to the curves is necessary.