



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 22, 2015

Mr. Joseph W. Shea
Vice President, Nuclear Licensing
Tennessee Valley Authority
1101 Market Street, LP 3R-C
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNIT 3 - REQUEST FOR ADDITIONAL INFORMATION RELATED TO LICENSE AMENDMENT REQUEST TO MODIFY TECHNICAL SPECIFICATION 2.1.1.2, REACTOR CORE MINIMUM CRITICAL POWER RATIO SAFETY LIMITS (TS-499) (TAC NO. MF5818)

Dear Mr. Shea:

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated March 6, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15090A436), Tennessee Valley Authority (TVA, the licensee) submitted a license amendment request for the Browns Ferry Nuclear Plant (BFN), Unit 3. The proposed amendment would modify the Technical Specification 2.1.1.2 value of the safety limit minimum critical power ratio (SLMCPR) for two-loop operation to 1.06 and the SLMCPR for single loop operation to 1.08. The revised SLMCPR values would reflect a reduction from the current values and are supported by the application of the methodology that was approved for use in BFN, Unit 3 (ADAMS Accession No. ML14113A286).

The NRC staff reviewed the licensee's submittal and determined that additional information is needed. On May 21, 2015, the NRC staff forwarded, by electronic mail, a draft of the staff's request for additional information to TVA. This request was discussed with Mr. Gordon Williams, and it was agreed that TVA would respond by July 10, 2015.

If you have any questions, please contact me at 301-415-1447 or farideh.saba@nrc.gov.

Sincerely,

A handwritten signature in black ink, reading "Farideh E. Saba", is positioned above the typed name.

Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-296

Enclosure:
Request for Additional Information

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REQUEST FOR ADDITIONAL INFORMATION
LICENSE AMENDMENT REQUEST TO
MODIFY TECHNICAL SPECIFICATION VALUE OF
SAFETY LIMIT MINIMUM CRITICAL POWER RATIO
TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT, UNIT 3
DOCKET NO. 50-296

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated March 6, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15090A436), Tennessee Valley Authority (the licensee) submitted a license amendment request (LAR) for Browns Ferry Nuclear Plant (BFN), Unit 3. The proposed amendment would modify the Technical Specification (TS) 2.1.1.2 value of the safety limit minimum critical power ratio (SLMCPR) for two-loop operation to 1.06 and the SLMCPR for single loop operation to 1.08. The revised SLMCPR values would reflect a reduction from the current values and are supported by the application of the methodology that was approved for use in BFN, Unit 3 (ADAMS Accession No. ML14113A286).

The NRC staff reviewed the licensee's submittal and determined that the following additional information is needed for the staff to complete its review of the submitted LAR.

1. In the Engineering Information Report provided as Attachment 3/4 to the LAR, the value for the assembly flow rate uncertainty indicated in Table 1 is slightly lower than the value provided for BFN, Unit 2, in 2012 (AREVA Document No. 51-9191259-001) and the value provided for the last BFN, Unit 3 SLMCPR submittal that could be located in NRC records (Framatome Advanced Nuclear Power report included with the October 1, 2003, LAR found under ADAMS Accession No. ML032810643). Provide justification for this decrease in uncertainty.
2. ANP-3140(P), which discusses the ACE/ATRIUM-10XM critical power correlation, indicates in the text and in Table 3-1 that an additional uncertainty is imposed on the minimum critical power ratio safety limit methodology for rods with high local peaking. Confirm that no rods in the Unit 3 Cycle 18 core are expected to exceed the limit for the applicability of the critical power correlations given in Table 1. Describe how high-peaking rods are identified and, as appropriate, the additional uncertainty applied.

Enclosure

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/RA/

Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
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