September 13, 2004

Mr. Karl W. Singer
Chief Nuclear Officer and
Executive Vice President
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNIT 1 - REQUEST FOR ADDITIONAL INFORMATION REGARDING THE ALLOWABLE VALUE FOR REACTOR VESSEL WATER LEVEL (TAC NO. MC2305)

Dear Mr. Singer:

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated March 9, 2004, the Tennessee Valley Authority submitted an application to revise the Technical Specifications and the licensing basis for the Browns Ferry Nuclear Plant, Unit 1. The proposed revision is related to the reduction of the allowable value used for the reactor vessel water level for several instrument functions.

The NRC staff has reviewed your submittal and finds that a response to the enclosed request for additional information is needed before we can complete the review. This request was discussed with Mr. Steven Kane of your staff on August 9, 2004, and it was agreed that a response would be provided within 30 days of receipt of this letter. If you have any questions, please contact me at (301) 415-1496.

Sincerely,

/RA/

Kahtan N. Jabbour, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-259

Enclosure: Request for Additional Information

cc w/encl: See next page

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Mr. Karl W. Singer
Tennessee Valley Authority

BROWNS FERRY NUCLEAR PLANT

cc:

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REQUEST FOR ADDITIONAL INFORMATION

ALLOWABLE VALUE FOR REACTOR VESSEL WATER LEVEL

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-259

1. Please provide a copy of the document that calculates the new instrument allowable value for Reactor Vessel Water Level - Low (Level 3) function. Discuss the instrument setpoint methodology used to calculate the allowable values.

2. The proposed new allowable value of the Reactor Vessel Water Level - Low is about 10 inches below the original allowable value, that will delay the protective action to mitigate the consequence of an accident. Please discuss any impact to the automatic load sequencer initiation which will provide emergency power to the Emergency Core Cooling System (ECCS) related components.

3. The original Level 3 allowable value in the Reactor Protection System (RPS) was 538 inches, and in the ECCS was 544 inches. The proposed new Level 3 allowable value in the RPS and in the ECCS are set at the same allowable value of 528 inches. Discuss any impact on system interaction by setting at the same value.

4. Please provide a simplified figure that shows, as a minimum, the elevations of the water in the reactor vessel for Level 3 and the top of active fuel.

5. Please discuss the assumptions that resulted in a small reduction of the peak clad temperature for a small-break loss-of-coolant accident analysis.

Enclosure