

August 15, 2005

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 UNITS 1, 2, AND 3 - REQUEST FOR ADDITIONAL  
INFORMATION REGARDING CHANNEL CALIBRATION TEST INTERVAL  
(TAC NOS. MC4070, MC4071, AND MC4072) (TS-447)

Dear Mr. Singer:

On August 16, 2004, as supplemented by a letter dated March 11, 2005, the Tennessee Valley Authority (TVA, the licensee) submitted a request to extend the channel calibration frequency requirements for instrumentation in the high pressure coolant injection, reactor core isolation cooling, and reactor water core isolation cooling systems.

The U.S. Nuclear Regulatory Commission 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. The NRC staff requests a response within 30 days from the date of issuance of this letter.

Sincerely,

*/RA/*

Eva A. Brown, Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260 and 50-296

cc w/encl: Request for Additional Information

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REQUEST FOR ADDITIONAL INFORMATION

CHANNEL CALIBRATION TEST INTERVAL

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY PLANT, UNITS 1, 2, AND 3

DOCKET NOS. 50-259, 50-260, AND 50-296

1. Generic Letter (GL) 91-04, *Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle*, provides guidance for extending the calibration surveillance interval from 92 and 122 days to 24 months. It should be noted that GL 91-04 was developed to be used when the plant fuel cycle was increased from 18 to 24 months. Since this request increases the test interval 6 to 8 times the original test interval, there may be failure modes which may not be detected because of an increased test interval. This may pose a greater hazard caused by common mode failure creating an increase in risk. Therefore:
  - provide an explicit description of the analyses, analyses results, and acceptance criteria used, including a discussion on the acceptability of using the methodology described in the GL, used in your evaluation; and
  - demonstrate that extended surveillance test intervals will not significantly increase the probability that the instruments will be unable to perform their safety function including providing the capability for safe shutdown.
2. Pages E-3 and E-4 of your application state that “necessary modifications will be completed to make the Unit 1 hardware configuration essentially identical to that on Units 2 and 3.” For the affected instruments, explain what is meant by essentially identical. Identify any physical differences among the three units’ equipment, which could affect the instrument drift analyses and provide justification for continued acceptability assuming a 24-month (+ 25 percent) test interval.

Enclosure

Mr. Karl W. Singer  
Tennessee Valley Authority

cc:

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## **BROWNS FERRY NUCLEAR PLANT**

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