

March 30, 1998

Mr. O. J. Zeringue  
Chief Nuclear Officer  
and Executive Vice President  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, Tennessee 37402-2801

SUBJECT: BROWNS FERRY PLANT, UNITS 2 AND 3 - REQUEST FOR ADDITIONAL  
INFORMATION REGARDING TECHNICAL SPECIFICATION CHANGE TS-384,  
REQUEST FOR LICENSE AMENDMENT FOR POWER UPDATE OPERATION  
(TAC NOS. M99711 AND M99712)

Dear Mr. Zeringue:

By letter dated October 1, 1997, Tennessee Valley Authority (TVA) proposed revisions to the Browns Ferry Nuclear Plant, Units 2 and 3 Technical Specifications to permit operation of the units at the uprated power level of 3458 MWt. Our review of your application is in progress. The staff has determined that additional information is required to complete these reviews.

A description of the information required is provided in the enclosure. Please provide the requested information by April 27, 1998. Your prompt response will assist us in completing timely reviews. If you have any questions, please write or call me at (301) 415-1471.

Sincerely,

ORIGINAL SIGNED BY:

L. Raghavan, Senior Project Manager  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

cc: See next page

Docket Nos. 50-260 and 50-296  
Serial No. BFN-98-002

Enclosure: As stated

DISTRIBUTION:

PUBLIC

JZwolinski

REckenrode

FHebdon

ADeAgazio

ACRS

JBongarra

Docket File

Browns Ferry r/f

JJaudon, RII

FCollins

BClayton

OGC

RGallo

1/1  
DF01

OFC	PDII-3/PM	PDII-3/LA	PDII-3/D		
NAME	LRaghavan: <i>lh</i> cw	BClayton <i>bc</i>	FHebdon <i>fh</i>		
DATE	3/30/98	3/30/98	3/30/98		

OFFICIAL RECORD COPY

DOCUMENT NAME: G:\BFN\99711RAI.HFB

9804020114 980330  
PDR ADDOCK 05000260  
PDR

ARC FILE CENTER COPY



Handwritten scribbles and marks in the top right corner.



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

March 30, 1998

Mr. O. J. Zeringue  
Chief Nuclear Officer  
and Executive Vice President  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, Tennessee 37402-2801

SUBJECT: BROWNS FERRY PLANT, UNITS 2 AND 3 - REQUEST FOR ADDITIONAL INFORMATION REGARDING TECHNICAL SPECIFICATION CHANGE TS-384, REQUEST FOR LICENSE AMENDMENT FOR POWER UPRATE OPERATION (TAC NOS. M99711 AND M99712)

Dear Mr. Zeringue:

By letter dated October 1, 1997, Tennessee Valley Authority (TVA) proposed revisions to the Browns Ferry Nuclear Plant, Units 2 and 3 Technical Specifications to permit operation of the units at the uprated power level of 3458 MWt. Our review of your application is in progress. The staff has determined that additional information is required to complete these reviews.

A description of the information required is provided in the enclosure. Please provide the requested information by April 27, 1998. Your prompt response will assist us in completing timely reviews. If you have any questions, please write or call me at (301) 415-1471.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Raghavan", written over a horizontal line.

L. Raghavan, Senior Project Manager  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

cc: See next page

Docket Nos. 50-260 and 50-296  
Serial No. BFN-98-002

Enclosure: As stated



11-11-11

REQUEST FOR ADDITIONAL INFORMATION

BROWNS FERRY NUCLEAR POWER PLANTS, UNITS 2 AND 3

POWER UPRATE OPERATION

(TAC NOS. M99711, M99712)

Topic 1 - Discuss whether the power uprate will change the type and scope of plant emergency and abnormal operating procedures. Will the power uprate change the type, scope, and nature of operator actions needed for accident mitigation and will new operator actions be required?

Topic 2- Provide examples of operator actions that are particularly sensitive to the proposed increase in power level and discuss how the power uprate will effect operator reliability or performance. Identify all operator actions that will have their response times changed because of the power uprate. Specify the expected response times before the power uprate and the new (reduced/increased) response times. Discuss why any reduced operator response times are needed. Discuss whether any reduction in time available for operator actions, due to the power uprate, will significantly affect the operator's ability to complete the required manual actions in the times allowed. Discuss results of simulator observations regarding operator response times for operator actions that are potentially sensitive to power uprate.

Topic 3 - Discuss all changes the power uprate will have on control room alarms, controls, and displays. For example, will zone markings on meters change (e.g., normal range, marginal range, and out-or-tolerance range)? If changes will occur, discuss how they will be addressed.

Topic 4 - Discuss all changes the power uprate will have on the Safety Parameter Display System and how they will be addressed.

Topic 5 - Describe all changes the power uprate will have on the operator training program and the plant simulator. Provide a copy of the post-modification test report (or test abstracts) to document and support the effectiveness of simulator changes as required by ANSI/ANS 3.5-1985, Section 5.4.1.

Specifically, please propose a license condition and/or commitment that stipulates the following:

- (a) Provide classroom and simulator training on all changes that effect operator performance caused by the power uprate modification. All training and the plant simulator will be modified, as necessary, to incorporate changes identified during the startup testing program.
- (b) Complete simulator changes that are consistent with ANSI/ANS 3.5-1985. Simulator fidelity will be re-validated in accordance with ANSI/ANS 3.5-1985, Section 5.4.1, "Simulator Performance Testing." Simulator revalidation will include comparison of individual simulated systems and components and simulated integrated plant steady state and transient performance with reference plant responses using similar startup test procedures.
- (c) Complete all control room and plant process computer system changes as a result of the power uprate.
- (d) Modify operator training and the plant simulator, as required, to address all related issues and discrepancies that are identified during the startup testing program.

ENCLOSURE

