

May 25, 2006

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, UNITS 1, 2 AND 3 — REQUEST FOR  
INFORMATION FOR REVIEW OF PENDING LICENSE AMENDMENT  
REQUESTS (TAC NOS. MC3812, MC3743, AND MC3744)  
(TS-431 AND TS-418)

Dear Mr. Singer:

This letter requests additional information to support the U.S. Nuclear Regulatory Commission (NRC) staff's review of two license amendment requests currently under review. These submittals are the request for extended power uprate (EPU) for the three Browns Ferry Nuclear Plant (BFN) Units. This information is needed for the reviews to proceed and be completed by the requested need dates.

#### Extended Power Uprate

By letters dated June 28 and 25, 2004 [ADAMS Accession Nos. ML041840299 and ML041840109], the Tennessee Valley Authority (TVA), the licensee, submitted amendment requests for all three units. The proposed amendments would change the BFN operating licenses to increase the maximum authorized power level by approximately 20 percent above the current maximum authorized power level for Unit 1 and approximately 15 percent for Units 2 and 3.

During discussions with the NRC staff beginning May 5, 2006, TVA stated that it has decided to construct a 16-cell cooling tower, in lieu of the 20-cell cooling tower described in both the EPU and license renewal applications, to support operation of Unit 1. This change was discussed again during a teleconference with TVA on May 14, 2006. The NRC staff described that the TVA should submit information specifying the changes in design of the new sixth cooling tower, including the number of cells, describe the changes in the expected frequency of derating, and changes in the analysis of environmental impacts. Such analysis should include, but not be limited to, an assessment of impacts on noise, thermal plume impacts on aquatic biota (including hydrothermal modeling and heat shock analysis), impacts on water use and quality, impacts on air quality, and impacts on threatened and endangered species. The submittal should include confirmation that these changes have been endorsed by the appropriate state and federal environmental agencies.

K. Singer

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As discussed previously, in a letter dated January 19, 2006, the ability of the NRC staff to meet the requested need dates for completion of the EPU submittal reviews can be significantly affected by delays or changes. This information is required by August 1, 2006, to support completion and publication of the Environmental Assessment (EA) in the *Federal Register* for public comment. Currently, NRC is delaying issuance of the EA to ensure it accurately reflects the modifications TVA plans to implement.

If you have any questions, please contact Ms. Margaret Chernoff at 301-415-4041 or Ms. Eva Brown at 301-415-2315.

Sincerely,

*/RA/*

Cornelius F. Holden, Deputy Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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

cc: See next page

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## **BROWNS FERRY NUCLEAR PLANT**

Mr. Karl W. Singer  
Tennessee Valley Authority  
cc:

Mr. Ashok S. Bhatnagar, Senior Vice President  
Nuclear Operations  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

Mr. Larry S. Bryant, Vice President  
Nuclear Engineering & Technical Services  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

Brian O'Grady, Site Vice President  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
P.O. Box 2000  
Decatur, AL 35609

Mr. Robert J. Beecken, Vice President  
Nuclear Support  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

General Counsel  
Tennessee Valley Authority  
ET 11A  
400 West Summit Hill Drive  
Knoxville, TN 37902

Mr. John C. Fornicola, Manager  
Nuclear Assurance and Licensing  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

Mr. Bruce Aukland, Plant Manager  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
P.O. Box 2000  
Decatur, AL 35609

Mr. Masoud Bajestani, Vice President  
Browns Ferry Unit 1 Restart  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
P.O. Box 2000  
Decatur, AL 35609

Mr. Robert G. Jones, General Manager  
Browns Ferry Site Operations  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
P.O. Box 2000  
Decatur, AL 35609

Mr. Scott M. Shaeffer  
Browns Ferry Unit 1 Project Engineer  
Division of Reactor Projects, Branch 6  
U.S. Nuclear Regulatory Commission  
61 Forsyth Street, SW.  
Suite 23T85  
Atlanta, GA 30303-8931

Mr. Larry S. Mellen  
Browns Ferry Unit 1 Project Engineer  
Division of Reactor Projects, Branch 6  
U.S. Nuclear Regulatory Commission  
61 Forsyth Street, SW.  
Suite 23T85  
Atlanta, GA 30303-8931

Mr. Glenn W. Morris, Manager  
Corporate Nuclear Licensing  
and Industry Affairs  
Tennessee Valley Authority  
4X Blue Ridge  
1101 Market Street  
Chattanooga, TN 37402-2801

Mr. William D. Crouch, Manager  
Licensing and Industry Affairs  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
P.O. Box 2000  
Decatur, AL 35609

Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
Browns Ferry Nuclear Plant  
10833 Shaw Road  
Athens, AL 35611-6970

State Health Officer  
Alabama Dept. of Public Health  
RSA Tower - Administration  
Suite 1552  
P.O. Box 303017  
Montgomery, AL 36130-3017

Chairman  
Limestone County Commission  
310 West Washington Street  
Athens, AL 35611