

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.

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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NRR-088

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