

December 10, 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, UNITS 2 AND 3 - REQUEST FOR
INFORMATION REGARDING PROPOSED USE OF BLENDED LOW
ENRICHMENT URANIUM FUEL

Dear Mr. Singer:

On January 11, 2001 the U.S. Nuclear Regulatory Commission (NRC) staff met with the Tennessee Valley Authority (TVA, the licensee) to discuss the need for blended low enrichment uranium (BLEU) lead test assemblies (LTAs) for the Browns Ferry Nuclear Plant (BFN) units. During the meeting TVA indicated that the intent was to proceed with a full-core reload for BFN starting in 2005. Sequoyah had previously used LTAs after submitting a topical report and subsequently gaining approval for an amendment from the staff on April 12, 1999. The summary indicated that a license amendment was required for Sequoyah, partly due to the high concentration of U-234 and U-236 in the downblended material. The vendor at the time (Siemens) indicated that the BFN fuel would be fabricated to the same specifications as commercial grade, with the only difference being the U-234 and U-236 isotopic content.

In the meeting summary, it was indicated that the NRC staff would expect the licensee's BFN amendment request to ". . . be 'robust' and include as much information as is available regarding the European experienced [sic] with reprocessed uranium cores." On August 17, 2001, TVA submitted information to support its position that LTAs were not needed for BFN and stated that BLEU use in Europe had revealed no operational problems. The NRC staff held a call with TVA on September 20, 2001, and indicated that since the submittal did not request a review, none would be conducted. The licensee indicated its intention to proceed with the installation of the BLEU core under the Title 10, *Code of Federal Regulations* (10 CFR), Section 50.59 process. The NRC staff's summary of October 2001 indicated that the licensee was reminded that the 10 CFR 50.59 is subject to further NRC review.

In discussions with Mr. Tim Abney of your staff, it has come to our attention that the 10 CFR 50.59 regarding the change in fuel type from Framatome ATRIUM-10 to a full core of

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BLEU was to be completed in November 2004. The NRC staff is requesting a copy of the 10 CFR 50.59 screen and evaluation be forwarded for review so the NRC staff may verify compliance with the current licensing basis for Browns Ferry Units 2 and 3.

If you have any questions, please contact Ms. Eva Brown, at (301) 415-2315.

Sincerely,

/RA/

Michael L. Marshall, Jr., Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-260 and 50-296

cc: See next page

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Mr. Karl W. Singer
Tennessee Valley Authority

BROWNS FERRY NUCLEAR PLANT

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