



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001

ACRSR-2222

November 7, 2006

MEMORANDUM TO: Luis A. Reyes
Executive Director for Operations
/RA/

FROM: John T. Larkins, Executive Director
Advisory Committee on Reactor Safeguards

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNIT 1 - EXTENDED POWER
UPRATE APPLICATION AND SUPPLEMENTAL APPLICATION

On June 28, 2004, the Tennessee Valley Authority (TVA) submitted an amendment request to raise the thermal power of Browns Ferry Nuclear Plant (BFN) Unit 1 from 3293 MWt to 3952 MWt, an increase of approximately 20% in original licensed thermal power (OLTP) (Reference 1). This is commonly referred to as an extended power uprate (EPU). Because of concerns with steam dryer operation at the EPU level, TVA will need to gather data and perform analyses to support the staff's completion of the related Safety Evaluation Report (SER). This will delay completion of the SER until the data and analyses are provided to the staff. The ACRS plans to review this EPU application after the final SER is provided.

On September 22, 2006, TVA submitted an amendment supplement (Reference 2) requesting approval of an increase in licensed thermal power of approximately 5% above the OLTP. TVA stated that it will use the analyses performed at 120% OLTP to license operation at 105% OLTP, whenever the results of the analyses performed at 120% OLTP bound plant operation at 105% OLTP. In its amendment supplement TVA stated that after review and approval of the 105% OLTP power uprate, the transition to 120% OLTP will "only be contingent upon NRC review and acceptance of the steam dryer stress report. All other safety evaluations that support operation at 105% OLTP would remain valid for operation at 120% OLTP."

Normally, the ACRS does not review power uprates less than about 105% OLTP (Reference 3). But in the case of BFN Unit 1, the licensee will use bounding arguments to demonstrate that safety analyses performed at 120% OLTP are valid to support operation at 105% OLTP. In view of the licensee's intended approach, the ACRS has decided to review the SER for the 105% power uprate for BFN Unit 1.

References:

1. Letter dated June 28, 2004 from T. Abney to Document Control Desk, "Browns Ferry Nuclear Plant (BFN) - Unit 1 - Proposed Technical Specifications (TS) Change TS-431 - Request for License Amendment - Extended Power Uprate (EPU) Operation"
2. Letter dated September 22, 2006 from W. Crouch to Document Control Desk, "Browns Ferry Nuclear Plant (BFN) - Unit 1 - Technical Specifications (TS) Change TS-431, Supplement 1 - Extended Power Uprate (EPU) (TAC No. MC3812)"
3. Memorandum dated October 9, 2003, from John T. Larkins to James E. Dyer, "Kewaunee Nuclear Power Plant - Advisory Committee on Reactor Safety Review of Stretch Power Uprate Amendment (TAC No. MB9031)"

cc: A. Vietti-Cook, SECY
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