

*Designated Original*

April 9, 2008

TVA-BFN-TS-418  
TVA-BFN-TS-431

10 CFR 50.90

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop OWFN, P1-35  
Washington, D. C. 20555-0001

Gentlemen:

In the Matter of	)	Docket Nos. 50-259
Tennessee Valley Authority	)	50-260
		50-296

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 1, 2, AND 3 -  
TECHNICAL SPECIFICATIONS (TS) CHANGES TS-431 AND TS-418 -  
EXTENDED POWER UPRATE (EPU) - CONFIRMATION OF COMMITMENT  
COMPLETIONS (TAC NOS. MD5262, MD5263 AND MD5264)**

By letters dated June 28, 2004 and June 25, 2004 (ADAMS Accession Nos. ML041840109 and ML041840301), TVA submitted license amendment applications for EPU operation at 3952 Megawatts Thermal (Mwt) for BFN Unit 1, and BFN Units 2 and 3, respectively. On September 22, 2006, TVA submitted a supplemental TS-431 change request (ML062680459), which revised the original June 28, 2004, Unit 1 EPU application to request approval of a 5 percent increase in thermal power over the original licensed thermal power (i.e., an increase from 3293 Mwt to 3458 Mwt). The September 22, 2006, supplemental TS-431 request was approved by NRC on March 6, 2007 (ML063350404). With this change, all three BFN units are currently licensed for power operation at 3458 Mwt.

*A001  
JRR*

Section 4.0, Regulatory Commitments, of NRC's March 6, 2007, Safety Evaluation (SE) for the Unit 1 TS-431 supplement listed several commitments that were shown as open at the time the SE was issued. NRC recently requested that TVA provide the status of these commitments to assist in the staff review of the pending full EPU license applications. The completion status of these commitments is provided below.

**Commitment**

As discussed in Section 2.2.4 <of this SE>, the licensee stated that the MOV switch settings at Unit 1 would be set prior to restart, but that some dynamic testing would be conducted during power ascension. TVA also indicated its commitment to implement the Joint Owners' Group Program on MOV periodic verification as part of its response to GL 96-05.

**Status**

TVA's May 12, 2007, submittal (ML071340090) documented the completion of the NRC Bulletins, Generic Letters (GL), Nuclear Performance Plan Special Programs, and TMI Action Items required for Unit 1 restart as defined in the TVA and NRC regulatory framework letters. In the May 12, 2007, TVA submittal, GL 96-05, "Generic Letter 96-05: Periodic Verification of Design-Basis Capability Of Safety-Related Motor-Operated Valves" and GL 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance" were documented as complete except for the testing of several valves that required nuclear steam/pressure for the completion of testing. This commitment completion included implementation of the GL 96-05 Joint Owners' Group Program on MOV periodic verification. NRC closed GL 96-05 in Unit 1 Recovery Inspection Report 2005-009, dated February 13, 2006 (ML060440586) and closed GL 89-10 in Unit 1 Recovery Inspection Report 2006-009, dated March 5, 2007 (ML070640353).

The testing activity (for the several valves that required nuclear steam/pressure) was documented in Enclosure 2 of the May 12, 2007, TVA submittal as a commitment, was

tracked by TVA's commitment management program, and was completed during Unit 1 restart testing.

Commitment

As discussed in Section 2.5.3.1 <of this SE>, the licensee has established a regulatory commitment to implement procedure changes that will: (1) define and control the generation of cycle-specific fuel pool heat load calculations, and (2) control the installation of the fuel pool gates based on the calculated fuel pool heat load.

Status

This commitment is open and being tracked in TVA's commitment management program as required for completion prior to EPU operation.

Commitment

As discussed in Section 2.6.5 <of this SE>, the licensee has committed to terminate drywell cooling within 2 hours of entry into the safe shutdown procedure which would be used for a shutdown due to fire.

Status

The BFN safe shutdown instructions (SSIs) were revised to include provisions to terminate drywell cooling within 2 hours of entry. These SSIs are applicable to all three BFN units. This commitment activity was tracked in accordance with TVA's commitment management program and was completed following revision of the SSIs.

Commitment

As part of the two-step approach to EPU, TVA will perform two Large Transient Tests (LTTs):

- A large transient test that simulates the rejection of generator load will be completed within 30 days of reaching 105-percent Original Licensed Thermal Power (OLTP).

U.S. Nuclear Regulatory Commission

Page 4

April 9, 2008

- An MSIV Closure with valve position scram large transient test will be performed within 30 days of reaching 115 percent to 120-percent OLTP.

As discussed in Section 2.12 <of this SE>, the NRC staff reviewed this commitment and did not agree with the power level proposed for the second LTT, therefore, a License Condition was established mandating performance at 105 percent.

#### Status

As noted above, the original TVA commitment was modified by a Unit 1 License Condition 2.G(2), which required performance of a Main Steam Isolation Valve (MSIV) closure test and a turbine generator load reject test during the power uprate power ascension test program and prior to exceeding 30 days of plant operation above a nominal 3293 Mwt power level. The full power MSIV closure transient test was performed on June 23, 2007, in accordance with License Condition 2.G(2). The integrated plant response to the trip was as expected and the transient was uneventful.

TVA subsequently requested the deletion of the turbine generator load reject test License Condition. The License Condition deletion was approved by NRC on August 14, 2007 (ML072250619), in the NRC letter titled, "Browns Ferry Nuclear Plant, Unit 1 - Issuance of Amendment Regarding Deletion of License Condition 2.G.(2) (TAC No. MD5871) (TS-461)." Additionally, in a TVA submittal dated October 22, 2007 (ML072960311) regarding the BFN EPU test program, TVA made an NRC commitment to perform a turbine generator load reject transient test from full EPU conditions within 60 days of operating at EPU power on Unit 1. The October 22, 2007, submittal also justified not performing additional MSIV LTTs on any BFN units.

**Commitment**

As discussed in Section 2.12 <of this SER>, TVA committed to trip a condensate booster pump, a condensate pump, and a main feedwater pump on an individual basis (i.e., one at a time). The NRC staff reviewed this commitment and issued a license condition mandating performance at 105 percent.

**Status**

Full power condensate, condensate booster pump, and main feedpump trip tests were performed on June 23, 2007, as part of the Unit 1 restart test program. The integrated plant response to these pump transients was as expected.

**Commitment**

As discussed in Section 2.1.3.1 <of this SER>, the NRC staff was concerned that any new components or material/environment combinations to be installed to support the restart that were not included in the License Renewal Application (LRA) should be identified and evaluated for aging management as part of this review rather than waiting for the annual update. To resolve this concern, the licensee agreed to submit an update on the status of the modifications. This letter was submitted on December 1, 2006.

**Status**

In November 2006 TVA performed a preliminary review of the planned EPU modifications on Units 1, 2, and 3 with regard to inclusion in the Aging Management Review (AMR) program. No additional components, materials, or environments were identified that would affect the AMR that was contained in the LRA. The results of this review were reflected in Table 3 of the TVA submittal referenced above dated December 1, 2006 (ML063380029).

EPU modifications have now been completed for Units 1 and 2 with the exception of the TS-418 and TS-431 instrument setpoint changes, high pressure turbine modifications on

U.S. Nuclear Regulatory Commission  
Page 6  
April 9, 2008

Unit 2, and modifications associated with steam dryer structural integrity (addition of steam line suppression devices). Unit 3 has implemented a limited number of EPU modifications with the bulk of the modifications scheduled for installation in the Spring 2010 refueling outage. The scope of EPU modifications was reviewed using the guidance of Regulatory Issue Summary 2007-16 to determine the current impact on the AMR Program. With the exception of the steam line suppression devices, the scope of EPU modifications remains the same for which the December 1, 2006 review was performed. These involve installation of new components designed for the life of the plant and outside the scope of the AMR program. Therefore, the conclusions of Table 3 in the above referenced letter will remain valid through EPU implementation.

TVA has determined that the additional information provided by this letter does not affect the no significant hazards considerations associated with the proposed TS changes. The proposed TS changes still qualify for a categorical exclusion from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9).

If you have any questions regarding this letter, please contact me at (256)729-2636.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 9<sup>th</sup> day of April, 2008.

Sincerely,

Original signed by

D. T. Langley  
Manager of Licensing  
and Industry Affairs

U.S. Nuclear Regulatory Commission

Page 7

April 9, 2008

cc: State Health Officer

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

NRC Senior Resident Inspector  
Browns Ferry Nuclear Plant  
10833 Shaw Road  
Athens, AL 35611-6970

Branch Chief  
U.S. Nuclear Regulatory Commission  
Region II  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23T85  
Atlanta, Georgia 30303-8931

Eva Brown, Project Manager  
U.S. Nuclear Regulatory Commission  
(MS 08G9)  
One White Flint, North  
11555 Rockville Pike  
Rockville, Maryland 20852-2739

U.S. Nuclear Regulatory Commission

Page 8

April 9, 2008

JEE:BCM:BAB

cc: G. P. Arent, EQB 1B-WBN  
W. R. Campbell, Jr. LP 3R-C  
S. M. Douglas, POB 2C-BFN  
R. F. Marks, Jr., PAB 1C-BFN  
D. C. Matherly, BFT 2A-BFN  
L. E. Nicholson, BR 4X-C  
R. G. West, NAB 2A-BFN  
B. A. Wetzel, BR 4X-C  
S. A. Vance, WT 6A-K  
E. J. Vigluicci, ET 11A-K  
NSRB Support, LP 5M-C  
EDMS (with enclosures) WT CA-K

s:\lic\submit\subs\EPU\Unit 1 105% SER Section 4 0 commitment status submittal April  
8r2.doc