July 31, 2006

U.S. Nuclear Regulatory Commission 10 CFR 50.90
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of) Docket No. 50-259
Tennessee Valley Authority)

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 1 - EXTENDED POWER UPRATE (EPU) LARGE TRANSIENT TESTING (TAC NOS. MC3812 AND MC7208) (TS-431)

NRC's June 28, 2006, letter to TVA on this subject proposed a license condition which NRC deemed necessary in association with the granting of an EPU license amendment for BFN Unit 1. By this letter TVA was requested to submit, by July 31, 2006, a supplement to TVA's TS-431 license amendment application which accepts this proposed license condition.

The license condition as proposed by NRC is restated here:

> During the extended power uprate (EPU) power ascension test program and prior to exceeding 60 days of plant operation above a nominal 3293 Megawatts thermal power level (100 percent original licensed thermal power) or within 30 days of satisfactory completion of steam dryer monitoring and testing (whichever is longer), with plant conditions stabilized at approximately the EPU full power level, TVA shall perform a main steam isolation valve closure test and a generator load reject test. Following each test, TVA shall confirm that plant response to the transient is as expected in accordance with previously established acceptance criteria. The evaluation of the test results for each test shall be completed, and all discrepancies resolved, prior to resumption of power operation.

TVA accepts the scope of testing stated above, however, this testing can be more efficiently integrated into the other

operational activities already planned for Unit 1 after its restart. In particular, TVA intends to perform a planned shutdown of Unit 1 in the Fall of 2007 to establish a noble metal water chemistry operating environment. Therefore, TVA proposes the following revision to the proposed license condition (added text is shown in ***bold italics***, and deleted text is indicated by ~~strikthrough~~):

> During the extended power uprate (EPU) power ascension test program and prior to exceeding 60 days of plant operation above a nominal 3293 Megawatts thermal power level (100 percent original licensed thermal power **(OLTP)**) or within 30 days of satisfactory completion of steam dryer monitoring and testing (whichever is longer), with plant conditions stabilized at approximately the EPU full power level **(105 - 120% OLTP)**, TVA shall perform a main steam isolation valve closure test. ***As part of the planned shutdown to establish a noble metal water chemistry operating environment, but no later than 180 days of power operation above 3293 Megawatts thermal power, TVA will perform*** ~~and~~ a generator load reject test. Following each test, TVA shall confirm that plant response to the transient is as expected in accordance with previously established acceptance criteria. The evaluation of the test results for each test shall be completed, and all discrepancies resolved, prior to resumption of power operation. ***TVA can take credit for an unscheduled MSIV closure or generator load reject scram from greater than 105% OLTP to fulfill this license condition should such an event occur prior to the scheduled test.***

The revised license condition accomplishes the desired testing, while utilizing one of the tests as the means to shutdown the unit for the noble metal water chemistry establishment. It is recognized that the revised testing schedule will allow uprated power operations for longer than the originally specified timeframe prior to completion of the generator load reject test. It is TVA's position that the good operating experience of Units 2 and 3 in response to actual load reject events, in conjunction with the design and operational fidelity which Unit 1 will have with these units upon its restart, provides high confidence that Unit 1 will respond similarly. Therefore, delaying the test by the requested time frame is not significant. Additionally, the revised license condition allows the removal of a shutdown/restart evolution from the Unit 1 schedule, and this removal carries with it a small, but non-zero, safety benefit.

TVA is also evaluating alternate means of demonstrating integrated plant response to meet the objective of the MSIV closure test specified in the General Electric EPU Licensing Topical Report(NEDC-32424P-A).

If this proposed revision is acceptable to NRC, then this letter constitutes the Unit 1 EPU license amendment supplement requested by NRC in the June 28, 2006, letter.

Sincerely,

Original signed by:

William D. Crouch
Manager of Licensing
and Industry Affairs

cc: U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30303-3415

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

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

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

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

DTL:PSH:BAB
cc: B. M. Aukland, POB 2C-BFN
A. S. Bhatnagar, LP 6A-C
J. C. Fornicola, LP 6A-C
R. G. Jones, NAB 1A-BFN
R. F. Marks, PAB 1C-BFN
F. C. Mashburn, BR 4X-C
M. Bajestani, NAB 1A-BFN
K. W. Singer, LP 6A-C
B. J. O'Grady, PAB 1E-BFN
E. J. Vigluicci, ET 11A-K
NSRB Support, LP 5M-C
EDMS WT CA - K

S:lic/submit/subs/U1 large transient testing - July.doc