

August 14, 2007

Mr. William R. Campbell, Jr.  
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, UNIT 1 - ISSUANCE OF AMENDMENT  
REGARDING DELETION OF LICENSE CONDITION 2.G.(2) (TAC NO. MD5871)  
(TS-461)

Dear Mr. Campbell:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 272 to Renewed Facility Operating License No. DPR-33 for the Browns Ferry Nuclear Plant, Unit 1. This amendment is in response to your application dated June 25, 2007, as supplemented by letters dated July 3 and 26, 2007. The amendment allows deletion of License Condition 2.G.(2) regarding the performance of power uprate large transient testing.

In addition, the submittal requested that this proposed amendment be handled as an exigent request consistent with Title 10 to the *Code of Federal Regulations*, Section 50.91(a)(6). As indicated in our letter dated July 9, 2007, the NRC had reviewed this request and determined that the circumstances presented by the licensee did not support an exigent review and abbreviated public comment period.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

*/RA/*

Eva A. Brown, Senior Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-259

Enclosures:

1. Amendment No. 272 to DPR-33
2. Safety Evaluation

cc w/enclosures: See next page

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TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-259

BROWNS FERRY NUCLEAR PLANT UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 272  
Renewed License No. DPR-33

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Tennessee Valley Authority (the licensee) dated June 25, 2007, as supplemented by letters dated July 3 and 26, 2007, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the Renewed Facility Operating License No. DPR-33 is hereby amended by the deletion of license condition 2.G.(2), as indicated in the attachment to this license amendment.
3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Thomas H. Boyce, Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Operating License

Date of Issuance: August 14, 2007

ATTACHMENT TO LICENSE AMENDMENT NO. 272  
TO RENEWED FACILITY OPERATING LICENSE NO. DPR-33  
DOCKET NO. 50-259

Replace Pages 3 and 6 of Renewed Operating License DPR-33 with the attached Pages 3 and 6.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 272

TO RENEWED FACILITY OPERATING LICENSE NO. DPR-33

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-259

1.0 INTRODUCTION

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated June 25, 2007, as supplemented by letters dated July 3 and 26, 2007, the Tennessee Valley Authority (TVA, the licensee) submitted an exigent request for changes to the Browns Ferry Nuclear Plant (BFN), Unit 1, renewed operating license. The initial request contained in the June 25, 2007 submittal requested the delay of one of the load reject large transient tests (LTTs). The July 3, 2007 supplement revised the request to accept a transient at a lower power level to satisfy License Condition (LC) 2.G.(2). With the completion of both LTTs, LC 2.G.(2) is satisfied and can be deleted.

The licensee's supplementary submittal dated July 3, 2007, provided information that was described in the original notice of proposed action published in the *Federal Register*. The licensee's supplementary submittal dated July 26, 2007, provided clarifying information that did not change the scope of the proposed amendment as described in the original notice of proposed action published in the *Federal Register* and did not change the initial proposed no significant hazards determination.

2.0 REGULATORY EVALUATION

Regulatory Guide (RG)1.68, *Initial Test Programs for Water-Cooled Nuclear Power Plants*, Appendix A, Section 5, *Power Ascension Tests*, identifies a representative list of systems and performance capabilities included in that phase of testing. In addition, RG 1.68.1, *Preoperational and Initial Startup Testing of Feedwater and Condensate Systems for Boiling-Water Reactor Power Plants*, describes in greater detail the nature of boiling-water reactor feedwater (FW) and condensate system tests. These RGs describe verification of the following capabilities of structures, systems, and component (SSC) performance during a load rejection: (1) the dynamic response of the plant is in accordance with the design for the case of full load rejection; (2) the turbine bypass valves and turbine stop, intercept, and control valves operate as designed; and (3) the stability and response characteristics of the FW automatic control system following plant transients are in accordance with system performance requirements.

Section 14.2.1 of NUREG-0800, *Generic Guidelines for Extended Power Uprate [EPU] Testing Programs*, provides the general guidelines for reviewing proposed EPU testing programs. This review acceptance criteria for proposed EPU test programs are based on the requirements of: (1) 10 CFR Part 50, Appendix B, Criterion XI, *Test Control*, which requires establishment of a test program to demonstrate that SSCs will perform satisfactorily in service; (2) Appendix A, *General Design Criteria for Nuclear Power Plants*, to 10 CFR Part 50, General Design Criterion (GDC) 1, *Quality Standards and Records*, insofar as it requires that SSCs important to safety be tested to quality standards commensurate with the importance of the safety functions to be performed; and (3) 10 CFR Section 50.34, *Contents of Applications: Technical Information*, which specifies requirements for the contents of the original operating license application including the Final Safety Analysis Report (FSAR) plans for pre-operational testing and initial operations.

Section III.A of Standard Review Plan (SRP) 14.2.1 specifies the guidance and acceptance criteria for comparison of the proposed power uprate testing program to the original power-ascension test program performed during initial plant licensing. Section III.B of SRP 14.2.1 specifies the guidance and acceptance criteria which the licensee should use to assess the aggregate impact of plant modifications, setpoint adjustments, and parameter changes that could adversely impact the dynamic response of the plant to anticipated operational occurrences, including load rejections. Section III.C. of SRP 14.2.1 provides guidance for evaluating justifications for test programs that do not include all of the power ascension testing that would normally be performed, considering the original power ascension test program and the scope of modifications.

### 3.0 TECHNICAL EVALUATION

In Enclosure 1 to a letter dated February 23, 2005, TVA identified planned modifications to support the power uprate for Unit 1 and testing associated with each modification. The modifications included substantial changes, including replacement of the condensate pump impellers, replacement of the condensate booster pumps, replacement of the turbine and impeller for each FW pump, and replacement and calibration of multiple balance-of-plant (BOP) instrumentation and control devices including digital FW and electrohydraulic control systems. Therefore, the NRC staff considered the evaluation of the dynamic response of the plant to a full load reject test to be important in demonstrating the acceptable implementation of the modifications.

On March 6, 2007, the NRC issued an amendment to increase the original licensed thermal power (OLTP) by 5 percent. The amendment included a license condition requiring the performance of two integrated tests at 105-percent OLTP to validate the results of the site-specific analyses performed in support of operation at the uprated power level. LC 2.G.(2) states:

During the power uprate power ascension test program and prior to exceeding 30 days of plant operation above a nominal 3293 megawatts thermal power level (100-percent OLTP) or within 30 days of satisfactory completion of steam dryer monitoring and testing that is necessary in order to achieve 105-percent OLTP (whichever is longer), with plant conditions stabilized at 105-percent OLTP, TVA shall perform a MS [main steam] isolation valve closure test and a turbine 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.

On June 9, 2007, Unit 1 was operating at approximately 80-percent current licensed thermal power (CLTP) and a reactor operating pressure of 1020 pounds per square inch gage (psig) when an unplanned turbine trip and scram occurred. The turbine trip resulted in a brief pressure rise of 79 psig to 1099 psig. System performance was consistent with a load reject. Turbine trips and load rejects are quite similar in reactor pressurization rate since both turbine stop and control valves close very rapidly. Load rejects are analytically slightly more severe than turbine trips from the same power level. This is because the control valves close from an intermediate position rather than from full open position. On June 23, 2007, the licensee performed MS isolation valve (MSIV) testing.

### 3.1 Performance of Balance-of-Plant Structures Systems and Components

In the letter dated July 26, 2007, TVA identified acceptance criteria planned for use in the power uprate generator load reject test. The licensee defined two levels of acceptance criteria. The Level 1 criteria were defined as test acceptance criteria, and Level 2 criteria were defined as operational performance criteria. The identified acceptance criteria included the following criteria related to BOP SSC performance:

#### Level 1:

- The turbine stop and control valves close no faster than times assumed in the Unit 1 Core Operating Limits Report (COLR); and
- Reactor pressure shall be maintained below 1230 psig during the transient following closure of all valves.

#### Level 2:

- The pressure regulator must regain control before a low pressure reactor isolation; and
- The reactor scram must meet the Reactor Protection System (RPS) specification.

In addition, the full power load reject test was included within the scope of original power ascension testing for Unit 1. In Section 13.5 of the Updated FSAR, TVA identified the test acceptance criteria applicable to the original turbine trip and generator load rejection test. The acceptance criteria included the following criteria related to balance-of-plant BOP SSC performance:

- FW systems must prevent flooding of the steamline following the transients (Level 1); and
- The FW controller must prevent a low-level initiation of the high pressure coolant injection and MSIV's as long as FW remains available (Level 2).

The NRC confirmed that the 1230 psig acceptance criteria was conservative as compared to the American Society of Mechanical Engineers Code safety limit of 1375 psig for the reactor

pressure vessel. Based on the above, the NRC staff finds that these criteria appropriately address the test verifications described in RG 1.68.

### 3.2 Generator Load Reject Test

In the June 25, 2007, letter the licensee submitted the results of an ODYN (NRC approved vendor computer code) turbine trip simulation analysis at 80-percent rated power. In order to demonstrate that the 80-percent turbine trip was sufficient to confirm expected plant response to a load reject at 100-percent CLTP (105-percent OLTP), the licensee compared the result of the 80-percent trip with two turbine trip simulations using ODYN. Since the 80-percent ODYN simulation was shown to be conservative with respect to the peak reactor pressure observed during the June 9 turbine trip event, the 100-percent power ODYN simulation provides a conservative estimate of the peak reactor pressure that would be expected during a turbine trip at 100-percent power.

The projection of plant response to a turbine trip from 100-percent CLTP indicates that adverse system interactions, such as reactor isolation due to low water level or low pressure, would be unlikely to result from the transient at 100-percent CLTP, and the staff expects no new thermal-hydraulic phenomena for uprates at this power level based on the experience of similar boiling-water reactors. Additionally, the NRC staff reviewed several other plant parameters, such as water level and neutron flux, and found that the trip results confirmed that analytical code accurately predicted actual plant performance.

#### 3.2.1 Peak Reactor Pressure

The Level 1 criteria requires that reactor pressure shall be maintained below 1230 psig during the transient following closure of the turbine stop and control valves. The NRC staff reviewed the results of the June 9 trip against both ODYN runs. The 80-percent ODYN run calculated the peak pressure to reach 1106 psig. The actual pressure observed was 1099 psig, which demonstrated that the code accurately predicted plant behavior for this transient. No MS relief valves (MSRVs) actuated as the lowest nominal setpoint of 1135 psig was never reached.

The 100-percent ODYN turbine trip simulation calculated a peak predicted reactor pressure of 1152 psig. The nominal setpoints for the three groups of MSRVs are 1135 psig, 1145 psig, and 1155 psig. The ODYN 100-percent analysis results in MSRVs opening very briefly (approximately 2 seconds) after which the turbine bypass valves react to control reactor pressure. Since the 100-percent ODYN turbine trip analysis predicts a brief pressure peak at 1152 psig, it is expected that a load reject transient, which is somewhat more severe, would still have ample margin to the test criteria value of 1230 psig.

As the predicted peak pressure was below the acceptance criteria, the NRC staff concludes that the peak pressure test criterion was satisfied.

#### 3.2.2 Closure of the Turbine Stop and Control Valves

Another Level 1 criteria requires that the turbine stop and control valves close no faster than times assumed in the COLR. During the June 9, 2007, turbine trip event from 80-percent power, the turbine control valve speed was measured by the plant process computer. At 80-percent rated power, the turbine control valves were approximately 33-percent full open and

were measured to close in approximately 100 milliseconds. Since the closure rate of the turbine control valves is essentially linear, a simple extrapolation of the closure time from 33-percent open to a full open control valve position yields an approximate 300-millisecond stroke time.

This satisfies the control valve timing acceptance criteria of 150 milliseconds by a factor of two. The turbine stop valve speeds were measured during the June 23, 2007, MSIV full closure transient test. The measured speed was approximately 300 milliseconds, which satisfies the turbine stop valve timing acceptance criteria of 100 milliseconds by a large margin. Based on the turbine stop and control valves met the acceptance criteria, the NRC staff concludes that the turbine stop and control valves performed as expected.

### 3.2.3 Pressure Regulator Control

A Level 2 criteria required that the pressure regulator regain control before a low pressure reactor isolation. During transients, it is desirable for the reactor pressure control system to maintain pressure above the MS line low pressure setpoint to avoid isolation of the MS lines. This allows the condenser to act as a heat sink and the FW and condensate booster pumps to provide level control. The MS line low pressure isolation setpoint is 825 psig.

The submittals provided a plot of key plant parameters measured during the June 9, 2007, turbine trip event from 80 percent rated power. The plot shows a brief pressure peak and then a smooth return of reactor pressure to a steady turbine set pressure of about 960 psig, which is well above the main steam line low pressure isolation setpoint. A similar behavior would be expected during a full power load reject. As the pressure remained above the low pressure setpoint during the 80 percent turbine trip, which is consistent with the 80 percent CLTP ODYN run, the NRC staff finds that the pressure regulator performed as expected.

### 3.2.4 Reactor Protection System

Another Level 2 criteria requires that the reactor scram must meet the RPS specification. The post-trip evaluation of the June 9, 2007, turbine trip scram and the June 23, 2007, MSIV full closure scram, demonstrated that the RPS responded as expected. All control rods fully inserted during both scrams and the scram signal was generated by the proper initiator.

During a load reject, the scram would be generated by the control valve fast closure low oil pressure switches. These switches are routinely tested in accordance with technical specification (TS) surveillance requirements and were also observed to trip during the June 9, 2007, turbine trip. As the RPS components performed as expected and the scram was generated by the proper initiator, the NRC staff, finds that the RPS performed as expected.

On the basis of the discussion made above, the NRC staff concludes that the results of the June 9, 2007, turbine trip event at 80-percent (2761 megawatts) power level and the analysis demonstrate that all the test criteria were satisfied. Based on the results from the ODYN run at 100-percent CLTP the NRC finds that results of the 80-percent trip provide reasonable assurance that all modifications and upgrades were appropriately implemented and the plant will operate satisfactorily at 100-percent CLTP.

## 3.3 Acceptance Criteria for MSIV Isolation Test

ODYN is a conservative licensing basis code, and is expected to over-predict the pressure increase even with inputs modified to better mimic the plant. In addition, field settings in the plant, such as the MSIV position switch trips, are conservatively set to provide margin to TS values and to compensate for instrument uncertainties. This practice also results in the actual plant performance being milder than predicted by the ODYN simulation for the same initial conditions. Existing plant event data recorders are capable of acquiring the necessary data to confirm the actual versus expected response. Furthermore, transient mitigation capability is also demonstrated by other tests required by the plant TSs, and the limiting transient analyses are included as part of the reload licensing analysis.

### 3.3.1 MSIV Stroke Time

The Level 1 criteria required that the MSIV stroke time be between 3 and 5 seconds, exclusive of electrical delay time. The measured MSIV stroke times for the eight MSIVs was between 3.46 seconds and 4.66 seconds. As the MSIV stroke times were completed within the criteria, the NRC staff finds that the MSIVs performed as expected.

Consequently, the plant performance during the June 23, 2007, transient test is reasonably bound by the ODYN simulation and, as expected, is milder than predicted by the ODYN simulation.

### 3.3.2 Peak Reactor Pressure

The Level 1 reactor steam dome pressure shall be maintained below 1230 psig during the transient following closure of all valves. The licensee indicated that the peak reactor steam dome pressure during the MSIV isolation test was approximately 1072 psig.

An ODYN analysis of an MSIV full closure transient - direct position switch scram (MSIVD) performed by the licensee to simulate the MSIVD test condition, predicted a pressure rise of about 90 psig to approximately 1120 psig, which is lower than the lowest set MSR/V grouping of 1135 psig. As a consequence, no MSR/Vs were predicted to be opened. This was consistent with the observations made during the actual MSIVD test on June 23, 2007, when none of the MSR/Vs opened. The peak measured reactor pressure during the test was about 40 psig lower than the predicted pressure. As the predicted peak pressure was below the acceptance criteria, the NRC staff concludes that the peak pressure test criteria was satisfied.

On the basis of the discussion made above, the NRC staff concludes that the results of the June 23, 2007, MSIV closure test demonstrates that all the test criteria were satisfied. Based on the results from the ODYN run at 100-percent CLTP the NRC finds that results of the test provide reasonable assurance that all modifications and upgrades were satisfactorily implemented.

## 3.4 Completion of License Condition 2.G.(2)

The large transient testing discussed above was found to be acceptable based on the following considerations:

- All test acceptance and operational criteria were satisfied;

- No new thermal-hydraulic phenomena or system interactions were observed during the tests at the plant conditions;
- The licensee demonstrated that the Unit 1 plant is in conformance with the limitations associated with applicable computer codes and analytical methods, and the plant transients were bounded by the code predictions; and
- The availability of adequate margin in safety analysis for abnormal operating occurrences.

In particular, the power uprate test program provides assurance that (1) any power uprate related modifications to the facility have been adequately constructed and implemented, and (2) the facility can be operated at the power uprate conditions in accordance with design requirements and in a manner that will not endanger the health and safety of the public. Additionally, the power uprate test program included sufficient testing to demonstrate that power uprate related plant modifications have been adequately implemented. This provides a high degree of assurance of SSCs and overall plant readiness for safe operation within the bounds of the design and safety analyses, assurance against unexpected or unanalyzed plant behavior, and assurance against early safety function failures in service. Therefore, the NRC staff finds that LC 2.G.(2) has been satisfied and can be deleted.

#### 4.0 EXIGENT REQUEST

In the submittals, the licensee contended that the request meets the criteria for an expedited review consistent with 10 CFR 50.91(a)(6) based on regulatory guidance provided in Regulatory Issue Summary (RIS) 2004-05, Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power, and in Generic Letter (GL) 2006-02, Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power. After reviewing the information contained in the licensee's submittals, the staff is in disagreement with the licensee's interpretation of RIS 2004-05 and GL 2006-02. The basis for the staff's position is described below.

The purpose of RIS 2004-05 is to advise nuclear power plant licensees of the requirements of 10 CFR 50.65, *Requirements for monitoring the effectiveness of maintenance at nuclear power plants*, 10 CFR 50.63, *Loss of all alternating current power*, GDC 17, and plant TSs as they relate to the operability of the offsite power supply for nuclear power plants.

In RIS 2004-05, the staff noted that the trip of a nuclear power plant, can cause grid changes that could result in a loss-of-offsite power (LOOP) event. However, a less likely event would be the trip of a nuclear power plant causing grid instability. The staff further stated that plant TSs require the offsite power system to be operable as part of the limiting conditions for operation and specify the actions to take when it is not. Nuclear power plant operators should, therefore, be cognizant of the capability of (1) the offsite power system to meet plant safety needs during operation and (2) situations that can result in a LOOP following a trip of the plant. Therefore, and in accordance with GDC 17, if offsite power is not capable of supporting the nuclear power plant safety requirements in either situation, the system should be declared inoperable and pertinent plant TS provisions followed.

It was not the intent of RIS 2004-05 to interfere with or delay measures to ensure that nuclear power plants can appropriately mitigate consequences of transients such as the turbine generator load reject transient test from full power. The licensee's submittals contain the

expected plant response and specific actions due to a turbine generator load reject transient test from full power. These tests are important in that they provide assurance that nuclear power plants adequately respond to a set of given conditions.

The submittals make a similar contention regarding the regulatory applicability of GL 2006-02. Specifically, the licensee stated that GL 2006-02 stresses the importance of maintaining stable grid conditions and managing the risk of activities that potentially represent challenges to the offsite power system. The purpose of GL 2006-02 was to determine if compliance was being maintained with NRC regulatory requirements governing electric power sources and associated personnel training. Similar to RIS 2004-05, it was not the intent of GL 2006-02 to interfere with or delay measures to ensure that nuclear power plants can appropriately mitigate consequences of transients such as the turbine generator load reject from full power.

Therefore, the licensee's contention that RIS 2004-05 or GL 2006-02 support the delay or elimination of measures to ensure that nuclear power plants can appropriately mitigate consequences of transients is inconsistent with the generic communications intent. However, the NRC staff does agree that unnecessary transients should be avoided and maintaining the stability of the electric grid is important. The NRC staff reviewed historical grid conditions and noted that the electric grid surrounding the BFN units has adequately operated in the past without the added capacity of Unit 1 supplying the electric grid.

Additionally, in its GL 2006-02 response, the licensee stated that grid stress and predicted loss of offsite power (LOOP) frequency at the three BFN sites do not significantly correlate to seasonal time periods. The licensee further stated that the TVA operates a very robust grid and has never experienced a stressed grid, as defined in GL 2006-02, or a grid-centered LOOP event. Based on the above the NRC staff finds that the effect of the plant trip, as a result of a scheduled turbine generator load reject transient test from full power, on the electric grid could be effectively managed by performing the test during a period of lower electric demand (e.g., at night or weekend).

Additionally, the NRC staff found that the licensee had provided no justification why the testing was not conducted prior to this request. The NRC staff also reviewed the licensee's exigency request against other provisions of Section 50.91(a)(6)(B)(vi) that require the licensee to justify the exigency and explain why the condition could not be avoided. The requirement to perform the generator load reject testing was provided to the licensee well in advance of the issuance of the actual license condition in March 2007 to allow the licensee ample time to plan and conduct both that test and the MSIV test during a period of low demand. TVA returned Unit 1 to 100 percent power after the June 9 trip around June 13, and the licensee elected to perform the MSIV test on June 23. The submittal was reviewed and the NRC staff found no basis for the decision not to perform the testing prior to the licensee's request on June 25. Therefore, the NRC staff finds that ample opportunity existed for the licensee to perform the testing prior to submittal of the amendment request on June 25.

Based on this information, the NRC staff finds that exigent circumstances consistent with the requirements of 10 CFR 50.91(a)(6) do not exist as the condition was avoidable as testing could be planned during periods of lower economic demand and conducted at the licensee's convenience.

## 5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92(c) state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility in accordance with the amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or,
- (2) Create the possibility of a new or different kind of accident from any previously evaluated; or,
- (3) Involve a significant reduction in a margin of safety.

The following analysis was provided by the licensee in its letter dated July 3, 2007:

1. Does the proposed Technical Specification change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

The requested licensing action would eliminate the current license condition schedule requirement to perform a full power turbine generator load reject transient test. No other changes are proposed. This proposed licensing action will not affect any system, structure, or component designed for the mitigation of previously analyzed events. Therefore, the proposed change does not involve an increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed Technical Specification change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

The requested licensing action would eliminate the current schedule requirement to perform a full power turbine generator load reject transient test. No other changes are proposed. Therefore, the proposed TS change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed Technical Specification change involve a significant reduction in a margin of safety?

Response: No

Performance of the full power load reject transient test is not necessary to ensure acceptable plant operation at the high thermal power level. Simple, integrated system tests have been performed, and a turbine trip from a high power and a main steam isolation valve transient test from full power have been experienced. In addition, other testing has been performed which demonstrated the satisfactory performance of individual components and subsystems. Thus, the proposed elimination of the load reject transient test will not significantly reduce any margin of safety.

The NRC staff has reviewed the licensee's analysis and based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff has determined that the amendments involve no significant hazards consideration.

## 6.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Alabama State official was notified of the proposed issuance of the amendment. The State official had no comments.

## 7.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission had previously issued a proposed finding that the amendment involves no significant hazards consideration, and there have been no public comment on such finding (72 FR 38627). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs be prepared in connection with the issuance of the amendment.

## 8.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: M. Razzaque  
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Date: August 14, 2007

Tennessee Valley Authority

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