

September 14, 2006

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: SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2 — ISSUANCE OF  
AMENDMENT REGARDING NEW TECHNICAL SPECIFICATION FOR LOSS OF  
POWER INSTRUMENTATION FOR EMERGENCY DIESEL GENERATOR AND  
AUXILIARY FEEDWATER ACTUATION (TAC NOS. MC4584 AND MC4585)  
(TS-04-01)

Dear Mr. Singer:

The Commission has issued the enclosed Amendment No. 311 to Facility Operating License No. DPR-77 and Amendment No. 300 to Facility Operating License No. DPR-79 for the Sequoyah Nuclear Plant (SQN), Units 1 and 2. These amendments are in response to your application dated September 30, 2004 (TS-04-01), as supplemented by letter dated May 25, 2006.

The amendments revise the SQN Technical Specifications (TSs) by relocating the requirements for the emergency diesel generator loss of power instrumentation and associated actions in the engineered safety features tables to a new limiting condition for operation (LCO) in the instrumentation section of the SQN TSs. In addition to the relocation, an upper allowable value limit has been added to the 6.9-kilovolt shutdown board loss of voltage and degraded voltage sensors consistent with Technical Specification Task Force (TSTF) Item, TSTF-365, along with a lower allowable value limit for the degraded voltage diesel generator start and load shed timers. In addition, the auxiliary feedwater loss of power start setpoints and allowable values have been relocated to this new LCO.

K. Singer

- 2 -

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/*

Douglas V. Pickett, Senior Project Manager  
Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-327 and 50-328

Enclosures: 1. Amendment No. 311 to  
License No. DPR-77  
2. Amendment No. 300 to  
License No. DPR-79  
3. Safety Evaluation

cc w/enclosures: See next page

K. Singer

- 2 -

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/*

Douglas V. Pickett, Senior Project Manager  
Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-327 and 50-328

- Enclosures: 1. Amendment No. 311 to License No. DPR-77
- 2. Amendment No. 300 to License No. DPR-79
- 3. Safety Evaluation

cc w/enclosures: See next page

DISTRIBUTION:

|                  |                    |                        |                   |
|------------------|--------------------|------------------------|-------------------|
| PUBLIC           | LPL2-2 r/f         | RidsNrrDorlLpl2-2      | RidsNrrPMDPickett |
| RidsNrrLaCSola   | RidsOgcRp          | RidsAcrsAcnwMailCenter | RidsNrrDirsltsb   |
| G. Hill, OIS (2) | RidsReg2MailCenter | RidsNrrDorlDpr         | RidsNrrDorl       |
| RidsNrrDeEicb    | B. Marcus, NRR     |                        |                   |

ADAMS Accession No. ML062710162-pkg, ML062160250-memo, ML062710019-Amen.300, ML062710017-Amen.311 NRR-058

|        |           |            |          |           |
|--------|-----------|------------|----------|-----------|
| OFFICE | LPL2-2/PM | LPL2-2/LA  | TSB/BC   | EEEE/BC   |
| NAME   | DPickett  | RSola      | TKobetz  | GWilson   |
| DATE   | 09 /12/06 | 08/ 04/ 06 | 08/09/06 | 08/08/ 06 |

|        |                                 |          |                |
|--------|---------------------------------|----------|----------------|
| OFFICE | EICB/BC                         | OGC      | LPL2-2/(A)BC   |
| NAME   | AHowe<br><i>(by memo dated)</i> | SHamrick | JDixon-Herrity |
| DATE   | 07/20/06                        | 08/29/06 | 09 /14/06      |

OFFICIAL RECORD COPY

Mr. Karl W. Singer  
Tennessee Valley Authority

**SEQUOYAH NUCLEAR PLANT**

cc:

Mr. Ashok S. Bhatnagar, Senior Vice President  
Nuclear Operations  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

Mr. Glenn W. Morris, Manager  
Corporate Nuclear Licensing  
and Industry Affairs  
Tennessee Valley Authority  
4X Blue Ridge  
1101 Market Street  
Chattanooga, TN 37402-2801

Mr. Larry S. Bryant, Vice President  
Nuclear Engineering & Technical Services  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

Mr. Paul L. Pace, Manager  
Licensing and Industry Affairs  
ATTN: Mr. James D. Smith  
Sequoyah Nuclear Plant  
Tennessee Valley Authority  
P.O. Box 2000  
Soddy Daisy, TN 37384-2000

Mr. Robert J. Beecken, Vice President  
Nuclear Support  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

Mr. David A. Kulisek, Plant Manager  
Sequoyah Nuclear Plant  
Tennessee Valley Authority  
P.O. Box 2000  
Soddy Daisy, TN 37384-2000

Mr. Randy Douet  
Site Vice President  
Sequoyah Nuclear Plant  
Tennessee Valley Authority  
P.O. Box 2000  
Soddy Daisy, TN 37384-2000

Senior Resident Inspector  
Sequoyah Nuclear Plant  
U.S. Nuclear Regulatory Commission  
2600 Igou Ferry Road  
Soddy Daisy, TN 37379

General Counsel  
Tennessee Valley Authority  
ET 11A  
400 West Summit Hill Drive  
Knoxville, TN 37902

Mr. Lawrence E. Nanney, Director  
Division of Radiological Health  
Dept. of Environment & Conservation  
Third Floor, L and C Annex  
401 Church Street  
Nashville, TN 37243-1532

Mr. John C. Fornicola, Manager  
Nuclear Assurance and Licensing  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

County Mayor  
Hamilton County Courthouse  
Chattanooga, TN 37402-2801

Ms. Ann P. Harris  
341 Swing Loop Road  
Rockwood, Tennessee 37854

TENNESSEE VALLEY AUTHORITY  
DOCKET NO. 50-327  
SEQUOYAH NUCLEAR PLANT, UNIT 1  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 311  
License No. DPR-77

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Tennessee Valley Authority (the licensee) dated September 30, 2004, as supplemented on May 25, 2006, 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 license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-77 is hereby amended to read as follows:

- (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. \_\_\_\_\_, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. TVA shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance, and shall be implemented no later than 45 days from the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Jennifer Dixon-Herrity, Acting Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment: Change to the Technical  
Specifications

Date of Issuance: 9/14/06

ATTACHMENT TO LICENSE AMENDMENT NO. 311

FACILITY OPERATING LICENSE NO. DPR-77

DOCKET NO. 50-327

Replace page 3 of Operating License No. DPR-77 with the attached page 3.

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

INSERT

Index page V

Index page V

3/4 3-21

3/4 3-21

3/4 3-22

3/4 3-22

3/4 3-23

3/4 3-23

3/4 3-27a

3/4 3-27a

3/4 3-27b

3/4 3-27b

3/4 3-37

3/4 3-37

3/4 3-37a

3/4 3-37a

3/4 3-38

3/4 3-38

-----

3/4 3-76

-----

3/4 3-77

-----

3/4 3-78

TENNESSEE VALLEY AUTHORITY  
DOCKET NO. 50-328  
SEQUOYAH NUCLEAR PLANT, UNIT 2  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 300  
License No. DPR-79

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Tennessee Valley Authority (the licensee) dated September 30, 2004, as supplemented on May 25, 2006, 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 license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-79 is hereby amended to read as follows:

- (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. \_\_\_\_\_, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. TVA shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance, and shall be implemented no later than 45 days from the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Jennifer Dixon-Herrity, Acting Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment: Change to the Technical  
Specifications

Date of Issuance: 9/14/06

ATTACHMENT TO LICENSE AMENDMENT NO. 300

FACILITY OPERATING LICENSE NO. DPR-79

DOCKET NO. 50-328

Replace page 3 of Operating License No. DPR-79 with the attached page 3.

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

INSERT

Index page V

Index page V

3/4 3-21

3/4 3-21

3/4 3-22

3/4 3-22

3/4 3-23

3/4 3-23

3/4 3-27a

3/4 3-27a

3/4 3-27b

3/4 3-27b

3/4 3-37

3/4 3-37

3/4 3-38

3/4 3-38

3/4 3-39

3/4 3-39

-----

3/4 3-74

-----

3/4 3-75

-----

3/4 3-76

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 311 TO FACILITY OPERATING LICENSE NO. DPR-77  
AND AMENDMENT NO. 300 TO FACILITY OPERATING LICENSE NO. DPR-79  
TENNESSEE VALLEY AUTHORITY  
SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-327 AND 50-328

1.0 INTRODUCTION

By application dated September 30, 2004 and supplemented on May 25, 2006, Tennessee Valley Authority (TVA, the licensee) requested a license amendment for the Sequoyah Nuclear Plant (SQN), Units 1 and 2, Technical Specifications (TSs). The proposed change would relocate the requirements for the emergency diesel generator (EDG) start loss of power instrumentation and associated actions in the engineered safety features (ESF) tables to a new limiting condition for operation (LCO) in the instrumentation section of the SQN TSs. In addition to the relocation, an upper allowable value limit has been added to the voltage sensors for loss of voltage and degraded voltage consistent with Technical Specification Task Force (TSTF) Item, TSTF-365, along with a lower allowable value limit for the degraded voltage diesel generator start and load shed timers. The auxiliary feedwater (AFW) loss of power start setpoints and allowable values have also been relocated to this new LCO. This relocated function utilizes LCO requirements, actions, and surveillances that are consistent with current requirements or have been revised to be consistent with NUREG-1431, "Standard Technical Specifications Westinghouse Plants."

Specifically, the proposed changes would include the following:

- (1) Relocate the Loss of Power EDG instrumentation to new TS LCO 3.3.3.11, "Loss of Power Diesel Generator Start Instrumentation."
- (2) Relocate the Loss of Power EDG instrumentation from TS Table 3.3-3, "Engineered Safety Feature Actuation System Instrumentation," to new TS Table 3.3-14, "Loss of Power Diesel Generator Start Instrumentation,"
- (3) Relocate the Loss of Power EDG instrumentation from TS Table 3.3-4, "Engineered Safety Feature Actuation System Instrumentation Trip Setpoints." to new TS Table 3.3-14,
- (4) Relocate the Loss of Power EDG instrumentation from TS Table 4.3-2, "Engineered Safety Feature Actuation System Instrumentation Surveillance Requirements," to new

TS Table 4.3-10, "Loss of Power Diesel Generator Start Instrumentation Surveillance Requirements,"

- (5) Relocate the Loss of Power Start AFW instrumentation from TS Table 3.3-4 to new TS Table 3.3-14,
- (6) Addition of a new Loss of Power upper allowable value limit for the Loss of Voltage - Voltage Sensors and a revised upper allowable value limit for the Degraded Voltage - Voltage Sensors in new TS Table 3.3-14 consistent with Standard Technical Specification Change Traveler TSTF-365, and
- (7) Addition of a lower allowable value limit for the Degraded Voltage Diesel Generator Start and Load Shed Timer in new TS Table 3.3-14.

Notice of these amendments was given in the *Federal Register* on January 18, 2005 (70 FR 2900).

The letter dated May 25, 2006, provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

## 2.0 REGULATORY EVALUATION

The EDGs provide a source of emergency power, Class 1E power, for the ESF systems, when offsite power is either unavailable (loss of voltage) or insufficiently stable (degraded voltage) to allow safe operation. Undervoltage protection will generate a loss of power start of the EDGs if a loss of voltage or degraded voltage condition occurs. The undervoltage protection includes definite time delay settings to ensure that adequate voltage is available on the Class 1E bus during post accident ESF load sequencing and that the permanently connected Class 1E loads are not damaged as a result of degraded voltage.

Paragraph (c)(1)(ii)(A) of Section 50.36 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Technical Specifications," requires, in part, that where a limiting safety system setting is specified for a variable on which a safety limit has been placed, the setting must be so chosen that automatic protective action will correct the abnormal situation before a safety limit is exceeded.

Regulatory Guide (RG) 1.105, Revision 3, "Setpoints for Safety-Related Instrumentation," describes a method acceptable to the staff for complying with the Commission's regulations for ensuring that setpoints for safety-related instrumentation are initially within and remain within the technical specification limits.

TSTF-365 adds an upper limit for the loss of voltage allowable value and the degraded voltage allowable value. TSTF-365 has been incorporated into TS 3.3.5, "Loss of Power Diesel Generator Start Instrumentation," in NUREG-1431, Revision 3, "Standard Technical Specifications Westinghouse Plants."

The nominal trip setpoint accounts for uncertainties in calibration, repeatability, and drift in order to ensure that the safety limit is not exceeded. The allowable value serves as an operability limit for the nominal trip setpoint.

### 3.0 TECHNICAL EVALUATION

The licensee has proposed a number of TS changes that would make the SQN TSs more consistent with NUREG-1431, "Standard Technical Specifications Westinghouse Plants," and implement Technical Specification Task Force (TSTF) Item, TSTF-365, "Add upper limits to the voltage and time delay setpoints of the loss of voltage relays." The proposed changes would relocate the requirements for the EDG start loss of power instrumentation and associated actions in the engineered safety features (ESF) tables to a new limiting condition for operation (LCO) in the instrumentation section of the SQN TSs. The AFW loss of power start setpoints and allowable values have also been relocated to this new LCO. These proposed changes utilize LCO requirements, actions, and surveillances that are consistent with current requirements or have been revised to be consistent with NUREG-1431 and are considered to be largely administrative in nature.

In addition, the licensee has proposed to add an upper allowable value limit to the voltage sensors for loss of voltage and degraded voltage consistent with TSTF-365. Finally, the licensee has proposed to add a lower allowable value limit for the degraded voltage diesel generator start and load shed timers.

#### 3.1 Relocation of Requirements to new TS 3/4.3.3.11

The proposed changes introduce new TS 3/4.3.3.11, "Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation." This new TS will include new TS Table 3.3-14, "Loss of Power Diesel Generator Start Instrumentation," and new TS Table 4.3-10, "Loss of Power Diesel Generator Start Instrumentation Surveillance Requirements." The licensee is utilizing the table format to more clearly reflect the requirements for this instrumentation in lieu of the more general LCO provision in the existing TS for the loss of power diesel generator start function.

The new LCO 3.3.3.11 will include the same applicability requirements as currently required in TS Table 3.3.3, "Engineered Safety Feature Actuation System Instrumentation." Proposed Actions a and b are also the same as currently required from Action 34 in TS Table 3.3.3. Proposed Action c states that each function in Table 3.3-14 can be entered separately. This provision is the same as the current application of the TS requirements and has been added for clarity. Proposed Action d is a new provision that is included to improve the awareness that additional actions associated with the AFW instrumentation could be impacted. The proposed applicability, actions, and surveillance requirements for the proposed new LCO 3.3.3.11 are consistent with the existing TS requirements or provide additional clarity and are acceptable to the staff.

The licensee proposes to relocate the Loss of Power EDG instrumentation requirements found in current TS Table 3.3-3 and Table 3.3-4, "Engineered Safety Feature Actuation System Instrumentation Trip Setpoints," to new TS Table 3.3-14, "Loss of Power Diesel Generator Start Instrumentation." The relocation of the Loss of Power EDG instrumentation requirements in TS Table 3.3-3 removes the only item that referenced Action 34 and footnote #####. Therefore, the licensee has proposed to delete this action and footnote. The licensee also proposed to relocate the trip setpoint and allowable values for the AFW start functional unit from TS Table 3.3-4 to new TS Table 3.3-14. The licensee proposes to insert a footnote in TS Table 3.3-4 referencing Table 3.3-14 for the location of these values. Finally, the # footnote in TS Table 4.3-2, "Engineered Safety Feature Actuation System Instrumentation Surveillance

Requirements," is proposed to be deleted because the relocated items were the only items that utilized this footnote. The proposed changes for the new TS Table 3.3-14 are consistent with the existing TS requirements or provide additional clarity and are acceptable to the staff.

The licensee has proposed to relocate the Loss of Power EDG instrumentation surveillance requirements of TS Table 4.3-2 to new TS Table 4.3-10 without changes. The proposed changes for the new TS Table 4.3-10 are identical with the existing TS requirements and are acceptable to the staff.

New TS Table 3.3-14 only utilizes a Required Channels column in place of the Minimum Channels Operable column. In addition, the new table does not include the Total Number of Channels column or the Channels to Trip column of existing TS Table 3.3-3. These changes are consistent with the standard TSs recommendations for instrumentation functions that utilize a table format and are acceptable to the staff.

### 3.2 New Allowable Value Limits

The licensee has proposed the addition of a new upper allowable value limit for the 6.9 kv Shutdown Board - Loss of Voltage sensors in new TS Table 3.3-14. Since there is currently no upper limit specified for the allowable values, it is possible that the settings of this instrumentation could be left in a region that would allow an inadvertent actuation of the EDGs. In addition, the licensee has proposed a revised upper allowable value limit for the 6.9 kv Shutdown Board - Degraded Voltage sensors in new TS Table 3.3-14 consistent with TSTF-365, and the addition of a lower allowable value limit for the Degraded Voltage Diesel Generator Start and Load Shed Timer in new TS Table 3.3-14.

The proposed changes would add (1) a new upper allowable value limit of " $\leq 5688$  volts" for TS Table 3.3-14, Function 1a, "6.9 kv Shutdown Board - Loss of Voltage, Voltage Sensors," (2) a revised upper allowable value limit of " $\leq 6522.5$  volts" for TS Table 3.3-14, Function 2a, "6.9 kv Shutdown Board - Degraded Voltage, Voltage Sensors," and (3) a new lower allowable value limit of " $\geq 218.6$  seconds" for TS Table 3.3-14, Function 2b, "6.9 kv Shutdown Board - Degraded Voltage, Diesel Generator Start and Load Shed Timer."

The proposed upper allowable value limits for the Loss of Voltage and Degraded Voltage sensors were developed using the licensee's setpoint methodology to provide assurance that unintended actuation of AFW and EDG start circuitry will not occur. The existing allowable values for the Loss of Voltage and Degraded Voltage sensors remain unchanged. The licensee proposes that these will become lower allowable value limits. The allowable values ensure that the instrumentation is capable of performing its specified safety functions in accordance with the plant design.

The proposed lower allowable value limit for the Degraded Voltage - Diesel Generator Start and Load Shed Timer ensures that unintended actuations from degraded voltage will not occur. This is not a change in the licensee's analysis, but adds a previously calculated value the licensee has been using that was not previously included in the TSs. This lower limit is similar to other time delay functions that have both upper and lower limits. The existing allowable value for Degraded Voltage - Diesel Generator Start and Load Shed Timer remains unchanged and the licensee proposes that this becomes an upper allowable value limit. This allowable

value ensures that the instrumentation is capable of performing its specified safety function in accordance with the plant design.

On January 13, 2006 the NRC staff sent the licensee a request for additional information on the SQN setpoint methodology. The NRC staff review focused on setpoint changes and the incorporation of requirements into the TSs that assess operability of instruments based on the previous as-left setting and the credible uncertainties when testing or calibrating the instrumentation.

In its May 25, 2006, response, the licensee stated that the Loss of Power instrumentation that is used to transfer the plant's power supply from offsite power to onsite standby system under conditions when the offsite supply quality is poor for a predetermined time or is degraded are not Limiting Safety System Settings on which a safety limit has been placed as discussed in 10 CFR 50.36 (c)(1)(ii)(A). The loss of offsite power instrument settings are intended to be set low enough to cause the transfer from offsite to onsite supply system when the offsite power system won't support the plant. The Loss of Power instrument settings anticipate the offsite power supply loss and are not intended to directly protect any safety limits. The settings for Loss of Power instruments are based on station equipment voltage requirements to assure that safety-related equipment has an adequate power supply. Additionally, the Loss of Power instruments are not part of the reactor protection system.

The licensee also stated that the SQN calibration procedures incorporate the as-left and as-found calibration tolerance values. Setpoint values found inside the as-left value do not require adjustment. Setpoint values found outside the as-left value and inside the as-found value will be adjusted and left within the as-left value per surveillance requirements. Setpoint values found outside the as-found value will require notification of the appropriate supervisors and a review will be conducted to determine operability of the instrumentation and whether TSs have been violated. In addition, corrective actions will be documented in the test log. Setpoint values found outside the allowable value will require that the channel be declared inoperable and appropriate action for the LCO will be entered. The readjustment of setpoint values and operability determination as described above is considered appropriate and is acceptable to the staff.

The staff finds that the new upper allowable value limits for the Loss of Voltage and Degraded Voltage sensors and the lower allowable value limit for the Degraded Voltage - Diesel Generator Start and Load Shed Timer provide more conservative requirements to enhance the safety function provided by this instrumentation. These values were determined using the licensee's setpoint methodology which uses the square-root-sum-of-squares method in the uncertainty calculation in accordance with the recommendations of RG 1.105. Therefore, the staff finds these new allowable value limits acceptable.

In summary, the licensee has proposed changes to the TSs that would relocate the requirements for the Loss of Power EDG instrumentation and Loss of Power Start AFW instrumentation in the ESF instrumentation tables to a new TS LCO. New upper allowable value limits for the Loss of Voltage and Degraded Voltage sensors and the lower allowable value limit for the Degraded Voltage - Diesel Generator Start and Load Shed Timer have been added to the new LCO. The staff concludes that the Actions and surveillance requirements for proposed TS LCO 3.3.3.11 are either identical to existing TS requirements or provide clarity and are consistent with the recommendations of NUREG-1431. Furthermore, proposed TS

Tables 3.3-14 and 4.3-10 are largely relocations of existing TS requirements and are also consistent with the recommendations of NUREG-1431. The staff concludes that the proposed TS changes are in conformance with 10 CFR 50.36(c)(1)(ii)(A), the recommendations of RG 1.105, TSTF-365, and NUREG-1431. Therefore, the staff concludes that the proposed TS changes are acceptable.

#### 4.0 STATE CONSULTATION

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

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 (and changes surveillance requirements). 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 has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (70 FR 2900). 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 need be prepared in connection with the issuance of the amendments.

#### 6.0 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: Barry Marcus  
Douglas Pickett

Dated: September 14, 2006