## January 26, 2007

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: BROWNS FERRY NUCLEAR PLANT, UNITS 2 AND 3 - ISSUANCE OF

AMENDMENTS REGARDING CHANGE OF EMERGENCY DIESEL GENERATOR REQUIRED ACTION 3.8.1.B.4 COMPLETION TIME FROM 14 DAYS TO 7 DAYS (TAC NOS. MD3404 AND MD3405) (TS-457)

Dear Mr. Singer:

The Commission has issued the enclosed Amendment Nos. 298 and 256 to Renewed Facility Operating Licenses Nos. DPR-52 and DPR-68 for the Browns Ferry Nuclear Plant, Units 2 and 3, respectively. These amendments are in response to your application dated October 26, 2006.

The amendments revise Technical Specification Required Action 3.8.1.B.4 for Browns Ferry Nuclear Plant Units 2 and 3. The revision changes the restoration time of an inoperable Emergency Diesel Generator from 14 to 7 days.

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 by B. Mozafari for/

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

Docket Nos. 50-260 and 50-296

Enclosures: 1. Amendment No. 298 to

License No. DPR-52

2. Amendment No. 256 to License No. DPR-68

3. Safety Evaluation

cc w/enclosures: See next page

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: BROWNS FERRY NUCLEAR PLANT, UNITS 2 AND 3 - ISSUANCE OF

> AMENDMENTS REGARDING CHANGE OF EMERGENCY DIESEL GENERATOR REQUIRED ACTION 3.8.1.B.4 COMPLETION TIME )FROM

14 DAYS TO 7 DAYS (TAC NOS. MD3404 AND MD3405) (TS-457)

Dear Mr. Singer:

The Commission has issued the enclosed Amendment Nos. 298 and 256 to Renewed Facility Operating Licenses Nos. DPR-52 and DPR-68 for the Browns Ferry Nuclear Plant, Units 2 and 3, respectively. These amendments are in response to your application dated October 26, 2006.

The amendments revise Technical Specification Required Action 3.8.1.B.4 for Browns Ferry Nuclear Plant Units 2 and 3. The revision changes the restoration time of an inoperable Emergency Diesel Generator from 14 to 7 days.

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 by B. Mozafari for/

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

Docket Nos. 50-260 and 50-296

Enclosures: 1. Amendment No. 298 to

License No. DPR-52 2. Amendment No. 256 to License No. DPR-68

3. Safety Evaluation

cc w/enclosures: See next page

**Distribution**: See next page

Package: ML063470066 TS:

ADAMS Accession No. ML063470063 NRR-058

OFFICE	LPL2-2	LPL2-2/PM	LPL2-2/LA	ITSB/BC	DE/EEEA/BC	OGC	LPL2-2/BC
NAME							MChernoff for
	MGutierrez	EBrown	BClayton	TKobetz	GWilson	SHamrick	LRaghavan
DATE	12/15/06	12/15/06	12/14/06	12/15/06	12/15/06	12/20/06	1/26/07

## **TENNESSEE VALLEY AUTHORITY**

#### **DOCKET NO. 50-260**

#### BROWNS FERRY NUCLEAR PLANT, UNIT 2

## AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 298 Renewed License No. DPR-52

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Tennessee Valley Authority (the licensee) dated October 26, 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 Renewed Facility Operating License No. DPR-52 is hereby amended to read as follows:
  - (2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 298, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

# /RA by M. Chernoff for/

L. Raghavan, Chief Plant Licensing Branch II-2 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications and Operating License

Date of Issuance: January 26, 2007

# ATTACHMENT TO LICENSE AMENDMENT NO. 298

## RENEWED FACILITY OPERATING LICENSE NO. DPR-52

## **DOCKET NO. 50-260**

Replace Page 3 of Renewed Operating License DPR-52 with the attached Page 3.

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

REMOVE 3.8-3

<u>INSERT</u> 3.8-3

## **TENNESSEE VALLEY AUTHORITY**

#### **DOCKET NO. 50-296**

#### BROWNS FERRY NUCLEAR PLANT, UNIT 3

#### AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 256 Renewed License No. DPR-68

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Tennessee Valley Authority (the licensee) dated October 26, 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 Renewed Facility Operating License No. DPR-68 is hereby amended to read as follows:
  - (2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 256, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

# /RA by M. Chernoff for/

L. Raghavan, Chief Plant Licensing Branch II-2 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications and Operating License

Date of Issuance: January 26, 2007

# ATTACHMENT TO LICENSE AMENDMENT NO. 256

## RENEWED FACILITY OPERATING LICENSE NO. DPR-68

# **DOCKET NO. 50-296**

Replace Page 3 of Renewed Operating License DPR-68 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 contains marginal lines indicating the areas of change.

<u>REMOVE</u> <u>INSERT</u> 3.8-3 3.8-3

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO. 298 TO FACILITY OPERATING LICENSE NO. DPR-52 AND AMENDMENT NO. 256 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-68

## **TENNESSEE VALLEY AUTHORITY**

#### BROWNS FERRY NUCLEAR PLANT, UNITS 2 AND 3

#### DOCKET NOS. 50-260 AND 50-296

#### 1.0 INTRODUCTION

By letter dated October 26, 2006, the Tennessee Valley Authority (TVA, the licensee) submitted a request for changes to the Browns Ferry Nuclear Plant (BFN), Units 2 and 3 Technical Specifications (TSs). The requested changes would revise the completion time for technical specification Required Action 3.8.1.B.4 from 14 days to 7 days for restoration of an inoperable Emergency Diesel Generator (EDG).

#### 2.0 REGULAORY EVALUATION

Section 182a of the Atomic Energy Act requires applicants for nuclear power plant operating licenses to include TSs as part of the license. The Commission's regulatory requirements related to the content of the TSs are contained in Title 10, Code of *Federal Regulations* (10 CFR) Section 50.36 The TS requirements in 10 CFR 50.36 include the following categories: (1) safety limits, limiting safety systems settings and control settings, (2) limiting conditions for operation, (3) surveillance requirements, (4) design features, and (5) administrative controls. The requirements for system operability during movement of irradiated fuel are included in the TS in accordance with 10 CFR 50.36(c)(2), "Limiting Conditions for Operation."

## 3.0 TECHNICAL EVALUATION

Plant auxiliary power for each unit at BFN is provided by the main generator through each unit's station service transformers during normal plant operation. If the unit is not operating, the plant power is provided from the 500-kilovolt (kV) switchyard (immediate offsite power source) through the main transformer and the unit station service transformers. Power is also available from the 161-kV system via the two common station service transformers (delayed offsite power source). In the event that all preferred offsite circuits from the 500-kV switchyard become unavailable, then it will result in an automatic transfer of safety-related loads to the common station service transformers. When no offsite power is available, safety-related loads will transfer to the EDGs.

TVA has a total of eight EDGs at the site for the purpose of providing standby power. Although any EDG could be aligned to any unit, four EDGs are normally dedicated to Units 1 and 2 and four are dedicated to Unit 3. All EDGs were manufactured by General Motors Electromotive Division and were deemed to comply with BFN's licensing basis. That determination included the acceptance of a 7-day completion time to perform TS Required Action 3.8.1.B.4. The 7-day completion time took into account the capacity and capability of the remaining ac sources, reasonable time for repairs, and low probability of a DBA occurring during this period.

TVA applied to extend the 7-day completion time to 14 days by letter dated March 12, 1997, as supplemented by letters dated March 30, 1999, April 23, 1999, and June 18, 1999. The extension was granted by the NRC through letter dated August 2, 1999, (Amendment Nos. 259 and 218). The decision to grant completion time extension was partly based on Unit 1 being shutdown. As a result of TVA's decision to restart Unit 1, the 14-day allowed outage time (AOT) is no longer valid. Therefore TVA is requesting to revise the completion time from 14 days to 7 days.

Unit 1 restart does not change the number of off-site power sources or the reliability of each source. Diesel generator (DG) capability and reliability is also not changed. In addition, the physical configuration of the standby ac supply and distribution system interconnects at the various levels of the electrical supply system is not changed.

Additionally, previous work experience indicates that shorter EDG outages can be achieved by performing preventive maintenance while operating. Scheduled maintenance on the DGs is conducted as recommended by the manufacturer. A 7-day AOT is generally sufficient to accommodate scheduled and unscheduled EDG maintenance.

For the reasons discussed above, the NRC staff finds the revision of completion time of Action 3.8.1.B.4 from 14 to 7 days acceptable.

## 4.0 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.

#### 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. The NRC staff has determined that the amendments involve 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 (71 FR 67398). Accordingly, the amendments meet 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 the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: M. Gutierrez

Date: January 26, 2007

Mr. Karl W. Singer Tennessee Valley Authority

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

Brian O'Grady, Site Vice President Browns Ferry Nuclear Plant Tennessee Valley Authority P.O. Box 2000 Decatur, AL 35609

Mr. Preston D. Swafford, Senior Vice President Nuclear Support Tennessee Valley Authority 6A Lookout Place 1101 Market Street Chattanooga, TN 37402-2801

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

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

Mr. Bruce Aukland, Plant Manager Browns Ferry Nuclear Plant Tennessee Valley Authority P.O. Box 2000 Decatur, AL 35609

Mr. Robert G. Jones, General Manager Browns Ferry Site Operations Browns Ferry Nuclear Plant Tennessee Valley Authority P.O. Box 2000 Decatur, AL 35609 Ms. Beth A. Wetzel, Manager Corporate Nuclear Licensing and Industry Affairs Tennessee Valley Authority 4X Blue Ridge 1101 Market Street Chattanooga, TN 37402-2801

Mr. William D. Crouch, Manager Licensing and Industry Affairs Browns Ferry Nuclear Plant Tennessee Valley Authority P.O. Box 2000 Decatur, AL 35609

Senior Resident Inspector U.S. Nuclear Regulatory Commission Browns Ferry Nuclear Plant 10833 Shaw Road Athens, AL 35611-6970

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

Chairman Limestone County Commission 310 West Washington Street Athens, AL 35611

Mr. Robert H. Bryan, Jr., General Manager Licensing and Industry Affairs Tennessee Valley Authority 4X Blue Ridge 1101 Market Street Chattanooga, TN 37402-2801

BROWNS FERRY NUCLEAR PLANT, UNITS 2 AND 3 - ISSUANCE OF SUBJECT:

AMENDMENTS REGARDING CHANGE OF EMERGENCY DIESEL

GENERATOR REQUIRED ACTION 3.8.1.B.4 COMPLETION TIME FROM

14 DAYS TO 7 DAYS(TAC NOS. MD3404 AND MD3405)

Dated: January 26, 2007

Distribution: **PUBLIC** LPL2-2 r/f

RidsNrrDorlLpl2-2 RidsNrrPMMChernoff RidsNrrPMEBrown

RidsNrrLABClayton (Hard Copy) RidsNrrLACGoldstein (Hard Copy)

RidsOgcRp

RidsAcrsAcnwMailCenter

RidsNrrDirsItsb RidsNrrDeEeea GHill (4 Hard Copies) RidsRgn2MailCenter RidsNrrDorlDpr