August 29, 2003

Mr. J. A. Scalice
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 1, 2 AND 3, REGARDING ISSUANCE OF AMENDMENTS (TAC NOS. MB8468, MB8469, MB8470) (TS-409)

Dear Mr. Scalice:

The Commission has issued the enclosed Amendment Nos. 246, 283, and 241 to Facility Operating Licenses Nos. DPR-33, DPR-52 and DPR-68 for the Browns Ferry Nuclear Plant, Units 1, 2, and 3, respectively. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated April 15, 2003.

The amendments would revise TS 3.7.3, "Control Room Emergency Ventilation (CREV) System," and applicable TS Bases to address a degraded main control room envelope pressure boundary. The proposed changes are consistent with the TS Task Force Traveler No. 287, Revision 5, "Ventilation System Envelope Allowed Outage Time," which was approved by the U.S. Nuclear Regulatory Commission on March 16, 2000.

During the period that the control room habitability envelope pressure boundary is inoperable, appropriate compensatory measures consistent with the intent of Title 10 of the *Code of Federal Regulations*, Part 50, Appendix A, General Design Criterion 19, will be utilized to protect control room personnel from potential hazards such as radiation, radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and to ensure physical security. The preplanned compensatory measures will be available to address these concerns for intentional and unintentional entry into the proposed new Condition B of TS 3.7.3.

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/

Kahtan N. Jabbour, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260 and 50-296

Enclosures: 1. Amendment No. 246 to
License No. DPR-33
2. Amendment No. 283 to
License No. DPR-52
3. Amendment No. 241 to
License No. DPR-68
4. Safety Evaluation

cc w/enclosures: See next page

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/

Kahtan N. Jabbour, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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Enclosures: 1. Amendment No. 246 to License No. DPR-33
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3. Amendment No. 241 to License No. DPR-68
4. 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 FACILITY OPERATING LICENSE

Amendment No. 246
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 April 15, 2003, 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-33 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 246, 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/

Allen G. Howe, Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: August 29, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 246

FACILITY OPERATING LICENSE NO. DPR-33

DOCKET NO. 50-259

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
3.7-8	3.7-8
3.7-9	3.7-9
3.7-10	3.7-10
B 3.7-19	B 3.7-19
B 3.7-21	B 3.7-21
B 3.7-22	B 3.7-22
B 3.7-23	B 3.7-23

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-260

BROWNS FERRY NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.283
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 April 15, 2003, 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-52 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 283, 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/

Allen G. Howe, Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: August 29, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 283

FACILITY OPERATING LICENSE NO. DPR-52

DOCKET NO. 50-260

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
3.7-9	3.7-9
3.7-10	3.7-10
3.7-11	3.7-11
B 3.7-19	B 3.7-19
B 3.7-21	B 3.7-21
B 3.7-22	B 3.7-22
B 3.7-23	B 3.7-23

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-296

BROWNS FERRY NUCLEAR PLANT, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 241
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 April 15, 2003, 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-68 is hereby amended to read as follows:

   2. Technical Specifications

      The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 241, 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/

Allen G. Howe, Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: August 29, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 283

FACILITY OPERATING LICENSE NO. DPR-68

DOCKET NO. 50-296

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
3.7-9	3.7-9
3.7-10	3.7-10
3.7-11	3.7-11
B 3.7-19	B 3.7-19
B 3.7-21	B 3.7-21
B 3.7-22	B 3.7-22
B 3.7-23	B 3.7-23

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 246 TO FACILITY OPERATING LICENSE NO. DPR-33

AMENDMENT NO. 283 TO FACILITY OPERATING LICENSE NO. DPR-52

AMENDMENT NO. 241 TO FACILITY OPERATING LICENSE NO. DPR-68

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3

DOCKET NOS. 50-259, 50-260, AND 50-296

1.0 INTRODUCTION

By letter dated April 15, 2003, the Tennessee Valley Authority (the licensee) submitted an application to revise Technical Specification (TS) 3.7.3, "Control Room Emergency Ventilation (CREV) System," for the Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3. The proposed revision would allow up to 24 hours to restore the control room pressure boundary (CRPB) to operable status when two trains of the CREV system are inoperable due to an inoperable CRPB in MODES 1, 2, and 3. In addition, a note is included to allow the pressure boundary to be opened intermittently under administrative controls. The licensee revised the applicable TS Bases to make them consistent with the TS revision. The proposed revision is consistent with the TS Task Force (TSTF) Traveler No. 287, Revision 5, "Ventilation System Envelope Allowed Outage Time," which was approved by the U.S. Nuclear Regulatory Commission (NRC) on March 16, 2000.

2.0 REGULATORY EVALUATION

The regulatory requirements and guidance which provide the basis for the staff's acceptance criteria are:

- 10 CFR Sections 50.36, 50.90, and 50.92; and GDC 19 of Appendix A to 10 CFR, Part 50.
- TSTF Traveler No. 287, Revision 5; approved by the NRC on March 16, 2000.
- The model TSs contained in the improved STSs, NUREG-1433, Revision 2, "Standard Technical Specifications, General Electric Plants," BWR/4 dated June 2001; specifically STS 3.7.4, and associated Bases

3.0 TECHNICAL EVALUATION

Existing Surveillance Requirement (SR) 3.7.3.4 ensures that the CRPB will meet its positive pressure limit with one CREV subsystem in operation. Current TS 3.7.3 provides specific Conditions, Required Actions, and Completion Times for CREV system inoperability due to degradation. However, it does not provide corresponding TS Conditions, Required Actions, or Completion Times associated with the CRPB degradation. Therefore, should the pressure boundary surveillance (i.e., SR 3.7.3.4) not be met in MODES 1, 2, or 3, TS 3.0.3 must be entered. Requiring the plant to enter TS 3.0.3 when the CRPB is not intact does not provide sufficient time to effect required repairs or corrective maintenance activities.

The proposed changes are similar in nature to the improved Standard Technical Specifications (STSs) for boiling-water reactor (BWR) secondary containment and pressurized-water reactor shield building which allow 24 hours to restore secondary containment or shield building envelope to operable status before requiring an orderly shutdown from operating conditions.

The staff has reviewed the licensee's regulatory and technical analyses in support of its proposed license amendment. The staff's evaluation is provided below.

3.1 CREV System

The proposed changes to TS 3.7.3 are:

A. A Note has been added to TS 3.7.3 for the CREV system to allow the main CRPB to be opened intermittently under administrative controls. The licensee revised the associated TS Bases to make them consistent with the TS revision.

B. A new Condition B is added to TS 3.7.3 to specify that 24 hours are allowed to restore an inoperable main CRPB to operable status. The licensee revised the associated TS Bases to make them consistent with the TS revision. The revised Bases include a description of the preplanned compensatory measures to be taken during the time period that the main control room boundary is inoperable.

C. Condition D of TS 3.7.3 (which is modified and now becomes Condition E) for two inoperable CREV subsystems in MODES 1, 2, or 3 is modified to enter LCO [limiting condition for operation] 3.0.3 immediately when the two CREV subsystems are inoperable for reason other than the degraded main CRPB, as stated in Condition B above. The associated Bases for this Condition are revised accordingly.

For entry and exit through doors, the administrative control of the doors is performed by the person(s) entering or exiting the area. For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the main control room. This individual will have a method to rapidly close the opening when a need for control room area isolation is indicated.

In summary, the proposed changes would allow 24 hours (during operation in MODES 1, 2, and 3) to restore the leak tightness of the CRPB before requiring the unit to perform an orderly shutdown, and also would allow intermittent openings of the CRPB under administrative controls. The 24-hour Completion Time provides consistency with similar TSs for secondary

containment or shield building as discussed in section 3, and is reasonable based on the low probability of a design basis accident occurring during this time period. In addition, the appropriate preplanned compensatory measures which will be utilized to protect the control room operators from potential hazards such as radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and to ensure physical security. The preplanned compensatory measures discussed in the previous paragraph are consistent with the intent of GDC 19 of Appendix A to 10 CFR Part 50, and will be available to address these concerns for intentional and unintentional entry into the proposed new Condition B of TS 3.7.3.

Based on the low probability of an event occurring during the extended allowed outage time and the availability of the preplanned compensatory measures which meet the intent of GDC 19, the staff finds that proposed changes are acceptable. These changes are in conformance with TSTF-287.

3.0 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.

4.0 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 (68 FR 28858). 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.

5.0 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 Contributor: E. N. Fields, NRR

Date: August 29, 2003

cc:

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