



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 1, 1993

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

Tennessee Valley Authority
ATTN: Dr. Mark O. Medford, Vice President
Nuclear Assurance, Licensing & Fuels
3B Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Mr. Medford:

SUBJECT: PARTIAL WITHDRAWAL OF AMENDMENT REQUEST AND ISSUANCE OF AMENDMENTS
(TAC NOS. M83198, M83199 AND M83200)

The Commission has issued the enclosed Amendment Nos. 192, 207, and 164 to Facility Operating Licenses Nos. DPR-33, DPR-52 and DPR-68 for the Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3, respectively. These amendments are in response to your application dated April 13, 1992, as supplemented by a partial withdrawal letter dated March 19, 1993, to revise the Technical Specifications (TS) of BFN, Units 1, 2, and 3, in accordance with the guidance of Generic Letters (GL) 86-10, "Implementation of Fire Protection Requirements," and 88-12, "Removal of Fire Protection Requirements from Technical Specifications."

By the letter dated March 19, 1993, TVA notified the staff that it was withdrawing the proposed deletion of TS Definition NN. for BFN, Unit 2. Definition NN. provides a description of TVA's Unit 2 "Appendix R Safe Shutdown Program"; the TS for BFN, Units 1 and 3 do not as yet contain a similar definition. TVA's amendment application of April 13, 1992, had proposed to delete Definition NN. from the BFN, Unit 2 TS. However, the guidance in GL 88-12 clearly states that any existing safe shutdown requirements should remain in TS. As such, TVA has subsequently decided to withdraw this portion of its amendment request. Consequently, the staff considers it as withdrawn.

Also included as part of the License Amendment for DPR-33, DPR-52, and DPR-68, are editorial changes to the numbering and/or lettering of certain license conditions. These changes will correct inconsistent numbering and lettering caused by previous amendments.

The NRC staff recognizes that the Appendix R Safe Shutdown Program at BFN, contained in the Fire Protection Program, does not accommodate operation of BFN, Units 1 and 3. By letter dated December 15, 1992, TVA submitted the Appendix R Safe Shutdown Program for combined operation of Units 2 and 3 for staff review and approval. Additionally, TVA has committed to submit the Appendix R Safe Shutdown Program for BFN, Units 1, 2, and 3, for staff review and approval prior to Unit 1 restart. However, as discussed with TVA on March 15, 1993, and documented by TVA letter dated March 19, 1993, TVA must

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Dr. Mark O. Medford

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April 1, 1993

submit an application to amend the BFN licenses prior to restart of Unit 3 and then Unit 1. These license amendments will revise the fire protection license condition of Units 1, 2, and 3, to reflect each succeeding staff safety evaluation approving the Appendix R Safe Shutdown Program as incorporated into the BFN Fire Protection Report for Unit 2/3 operation and then finally for Unit 1/2/3 operation.

A copy of the Safety Evaluation and a Notice of Partial Withdrawal are also enclosed. A Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by

Victor Nerses for

Frederick J. Hebdon, Project Director
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 192 to
License No. DPR-33
2. Amendment No. 207 to
License No. DPR-52
3. Amendment No. 164 to
License No. DPR-68
4. Safety Evaluation
5. Notice of Partial Withdrawal

cc w/enclosures:
See next page

LA:PDII-4	PM:PDII-4	PM:PDII-4	OGC	SPLB	D:PDII-4
MSanders <i>ms</i>	TRoss <i>TR</i>	JWilliams <i>JW</i>	S. How	CMcCracken	FHebdon <i>FH</i>
3/29/93	3/29/93	3/30/93	3/30/93	3/29/93	4/1/93

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Dr. Mark O. Medford

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April 1, 1993

submit an application to amend the BFN licenses prior to restart of Unit 3 and then Unit 1. These license amendments will revise the fire protection license condition of Units 1, 2, and 3, to reflect each succeeding staff safety evaluation approving the Appendix R Safe Shutdown Program as incorporated into the BFN Fire Protection Report for Unit 2/3 operation and then finally for Unit 1/2/3 operation.

A copy of the Safety Evaluation and a Notice of Partial Withdrawal are also enclosed. A Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

A handwritten signature in cursive script, appearing to read "Fred Hebdon", written in dark ink.

Frederick J. Hebdon, Project Director
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No.192 to
License No. DPR-33
2. Amendment No.207 to
License No. DPR-52
3. Amendment No.164 to
License No. DPR-68
4. Safety Evaluation
5. Notice of Partial Withdrawal

cc w/enclosures:
See next page

Tennessee Valley Authority
ATTN: Dr. Mark O. Medford

cc:

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AMENDMENT NO. 192 FOR BROWNS FERRY UNIT 1 - DOCKET NO. 50-259
AMENDMENT NO. 207 FOR BROWNS FERRY UNIT 2 - DOCKET NO. 50-260
AMENDMENT NO. 164 FOR BROWNS FERRY UNIT 3 - DOCKET NO. 50-296
DATED: April 1, 1993

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cc: Plant Service list



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-259

BROWNS FERRY NUCLEAR PLANT UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 192
License No. DPR-33

The Nuclear Regulatory Commission (the Commission) has found that:

- A. The application for amendment by Tennessee Valley Authority (the licensee) dated April 13, 1992 as supplemented March 19, 1993, 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 paragraphs 2.C.(2), 2.C.(4), 2.C.(13) and 2.E of Facility Operating License No. DPR-33 are hereby amended to read as follows:*

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.192, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

(4) Deleted

- (13) Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the SEs dated December 8, 1988, March 6, 1991, March 31, 1993 and Supplement dated November 3, 1989 subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- D. This amended license is effective as of the date of issuance and shall expire midnight on December 20, 2013.

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



Frederick J. Hebdon, Director
Project Directorate II-4
Division of Reactor Projects - I/11
Office of Nuclear Reactor Regulation

Attachments:

1. Pages 2, 3, 4, 5, and 6 of
License DPR-33
2. Changes to the Technical
Specifications

Date of Issuance: April 1, 1993

*Pages 2, 3, 4, 5, and 6 are attached, for convenience, for the composite license to reflect this change.

ATTACHMENT 1 TO LICENSE AMENDMENT NO. 192

FACILITY OPERATING LICENSE NO. DPR-33

DOCKET NO. 50-259

Revise License DPR-33 as follows:

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- H. After weighing the environmental, economic, technical and other benefits of the facility against environmental costs and considering available alternatives, the issuance of Facility Operating License No. DPR-33, as amended, is in accordance with 10 CFR Part 50, Appendix D, of the Commission's regulations; and
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this amended license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31.
2. The Atomic Safety and Licensing Board having dismissed the proceeding relating to the licensing action in a "Memorandum and Order," dated November 27, 1973, Facility Operating License No. DPR-33 issued to the Tennessee Valley Authority on June 26, 1973 is hereby amended in its entirety to read as follows:
- A. This amended license applies to the Browns Ferry Nuclear Plant, Unit 1, a boiling water nuclear reactor and associated equipment (the facility), owned by the Tennessee Valley Authority. The facility is located in Limestone County, Alabama, and is described in the "Final Safety Analysis Report" (Amendment 9) as supplemented and amended (Amendments 10 through 52), the licensee's Draft Environmental Statement and supplement thereto dated July 1971, and November 8, 1971, respectively, and the licensee's Final Environmental Statement dated September 1, 1972.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Tennessee Valley Authority:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location in Limestone County, Alabama, in accordance with the procedures and limitations set forth in this amended license;
 - (2) Pursuant to the Act and 10 CFR Parts 40 and 70, to receive, possess, and use at any time source and special nuclear material as reactor fuel in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report as supplemented and amended;
 - (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or equipment and instrument calibration or associated with radioactive apparatus or components;
 - (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This amended license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 3293 megawatts thermal.
 - (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 192, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.
 - (3) In the operation of the facility, the licensee shall, pursuant to the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500), comply with all applicable thermal water quality standards of the State of Alabama and the United States.
 - (4) Deleted.
 - (5) The facility may be modified by plugging the bypass flow holes in the lower core support plate as described in Browns Ferry Nuclear Plant Units 1 and 2 Safety Analysis Report for Plant Modifications to Eliminate Significant In-Core Vibrations (NEDC-21091), October 1975. The reactor shall not be operated with the plugs installed in the lower core support plate bypass flow holes without further authorization by the NRC.

- (6) The facility may be modified by drilling bypass flow holes in Type 2 and Type 3 fuel assemblies as described in NEDO-21091, "Browns Ferry Nuclear Plant, Units 1 & 2 Safety Analysis Report for Plant Modifications to Eliminate Significant In-Core Vibrations;" and NEDE-21156, "Supplemental Information for Plant Modification to Eliminate Significant In-Core Vibrations," dated January 1976.
- (7) The facility may be modified as described in "Browns Ferry Nuclear Plant Units 1 and 2 Emergency Core Cooling Systems Low Pressure Coolant Injection Modifications for Performance Improvement (December 1975)" submitted by application dated December 1, 1975 and supplements dated February 12, 1976, March 24, 1976, March 30, 1976, May 21, 1976, June 11, 1976, and July 21, 1976.
- (8) The licensee shall maintain in effect and fully implement all provisions of the Commission approved physical security plan including amendments made pursuant to the authority of 10 CFR 50.54(p). The approved plan, which contains information protected under 10 CFR 73.21, is entitled "Browns Ferry Nuclear Plant Physical Security Plan," dated May 15, 1982 (TVA letter dated June 11, 1982) and revisions submitted by TVA letters dated August 31, 1982 and October 19, 1982.

Notwithstanding the statement in Section 9.1 of the physical security plan, the licensee shall maintain positive access control over containment in accordance with the requirements of 10 CFR 73.55(d)(8).
- (9) The facility may be modified as described in "Browns Ferry Nuclear Plant Units 1 and 2 Emergency Core Cooling Systems Low Pressure Coolant Injection Modifications For Performance Improvement (October 1977)" submitted by letter dated December 28, 1977 and supplemented by letter dated December 13, 1978.
- (10) The licensee shall follow all provisions of the NRC approved Guard Training & Qualification Plan, including amendments and changes made pursuant to 10 CFR 50.54(p). The approved Guard Training & Qualification Plan is identified as "Browns Ferry Nuclear Power Station Guard Training & Qualification Plan," dated August 17, 1979, as revised by pages dated January 24, 1980, May 21, 1980, October 1, 1980, and March 9, 1981 and as may subsequently be revised in accordance with 10 CFR 50.54(p). The Guard Training & Qualification Plan shall be followed, in accordance with 10 CFR 73.55(b), 60 days after the date of this amendment.

- (11) The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Browns Ferry Physical Security Plan", with revisions submitted through May 24, 1988; "Browns Ferry Security Personnel Training and Qualification Plan", with revisions submitted through April 16, 1987; and "Browns Ferry Safeguards Contingency Plan", with revisions submitted through June 27, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.
- (12) The licensee is authorized to temporarily store low-level radioactive waste in an existing covered pavilion that is situated outside the security fence, as presently located, but inside the site exclusion area. The total amount of low-level waste to be stored shall not exceed 1320 curies of total activity. This authorization expires two years from the effective date of this amendment and is subject to all the conditions and restrictions in TVA's application dated January 21, 1980.
- (13) Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the SEs dated December 8, 1988, March 6, 1991, March 31, 1993 and Supplement dated November 3, 1989 subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- D. This amended license is effective as of the date of issuance and shall expire midnight on December 20, 2013.

FOR THE ATOMIC ENERGY COMMISSION

S/ A. Giambusso
A. Giambusso, Deputy Director
for Reactor Projects
Directorate of Licensing

Date of Issuance: DEC 20 1973

BFN
Unit 1

Amendments 60, 78, 157, 167, 192

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LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

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6.2.2 (Cont.)

- d. Two licensed reactor operators shall be in the control room during any cold startups, while shutting down the reactor, and during recovery from unit trip. In addition, a person holding a senior operator license shall be in the control room for that unit whenever it is in an operational mode other than cold shutdown or refueling.
- e. A Health Physics Technician* shall be present at the facility at all times when there is fuel in the reactor.
- f. A person holding a senior operator license or a senior operator license limited to fuel handling, shall be present during alteration of the core to directly supervise the activity and during this time shall not be assigned other duties.
- g. Deleted.

*The Health Physics Technician may be absent from the facility for a period of time not to exceed 2 hours provided immediate action is taken to fill the required position.

Table 6.2.A
Minimum Shift Crew Requirements^b

<u>Position</u>	<u>Units in Operation</u>				<u>Type of License</u>
	0	1	2 ^d	3	
Senior Operator ^a	1	1	1	1	SRO
Senior Operator	0	1	2	2	SRO
Licensed Operators	3	3	3	3	RO or SRO
Additional Licensed Operators ^c	0	1	2	2	RO or SRO
Assistant Unit Operators (AUO)	4	4	5	5	None
Shift Technical Advisor (STA)	0	1	1	1	None
Health Physics Technician	1	1	1	1	None

Note for Table 6.2.A

- a. A senior operator will be assigned responsibility for overall plant operation at all times there is fuel in any unit.
- b. Except for the senior operator discussed in note "a", the shift crew composition may be one less than the minimum requirements of Table 6.2.A for a period of time not to exceed two hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2.A. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent.
- c. One of the Additional Licensed Operators must be assigned to each control room with an operating unit.
- d. The number of required licensed personnel, when the operating units are controlled from a common control room, are two senior operators and four operators.

6.5.1.6 (Cont.)

1. Review of reportable events, unusual events, operating anomalies, and abnormal performance of plant equipment.
- m. Investigate reported or suspected incidents involving safety questions or violations of the Technical Specifications.
- n. Review of unit operations to detect potential hazards to nuclear safety. Items that may be included in this review are NRC inspection reports, QA audit, NSRB audit results, American Nuclear Insurer (ANI) inspection results, and significant corrective action reports (CARs).
- o. Performance of special reviews, investigations, or analysis, and report thereon as requested by the Plant Manager or the Nuclear Safety Review Board.
- p. Review of the Fire Protection Program, "Fire Protection Report, Volume-1", and implementing procedures, "Safe Shutdown Instructions", and the submittal of PORC approved changes to Nuclear Safety Review Board.

AUTHORITY

6.5.1.7 The PORC shall:

- a. Recommend to the Plant Manager in writing, approval, or disapproval of items considered under 6.5.1.6.a through i above.
 1. The recommendation shall be based on a majority vote of the PORC at a formal meeting.
 2. The recommendation shall be based on a unanimous vote of the PORC when the PORC members are acting individually.
 3. Each member or alternate member shall have one vote.
- b. Furnish for consideration a determination in writing with regard to whether or not each item considered under 6.5.1.6.f above constitutes an unreviewed safety question.
- c. Make recommendations to the Plant Manager in writing that action reviewed under 6.5.1.6.k above did not constitute an unreviewed safety question.
- d. Provide written notification within 24 hours to the Site Director and the Nuclear Safety Review Board of disagreements between the PORC and the Plant Manager. However, the Plant Manager shall have responsibility for resolution of such disagreements pursuant to Specification 6.1.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-260

BROWNS FERRY NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 207
License No. DPR-52

The Nuclear Regulatory Commission (the Commission) has found that:

- A. The application for amendment by Tennessee Valley Authority (the licensee) dated April 13, 1992, as supplemented March 19, 1993, 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 paragraphs 2.C.(2), 2.C.(5), 2.C.(5)(a), 2.C.(14) and 2.E of Facility Operating License No. DPR-52 are hereby amended to read as follows:*

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.207, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- (5) The facility may be modified by plugging the bypass flow holes in the lower core support plate as described in Browns Ferry Nuclear Plant Units 1 and 2 Safety Analysis Report for Plant Modifications to Eliminate Significant In-Core Vibrations (NEDC-21091), October 1975. The reactor shall not be operated with the plugs installed in the lower core support plate bypass flow holes without further authorization by the NRC.
- (5)(a) Deleted
- (14) Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the SEs dated December 8, 1988, March 6, 1991, March 31, 1993 and Supplement dated November 3, 1989 subject to the following provision:
- The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safety shutdown in the event of a fire.
- D. This amendment is effective as of the date of issuance and shall expire midnight on June 28, 2014.

*Pages 3, 4, 5 and 6 are attached, for convenience, for the composite license to reflect this change.

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

A handwritten signature in cursive script, appearing to read "Frederick J. Hebdon".

Frederick J. Hebdon, Director
Project Directorate II-4
Division of Reactor Projects - I/11
Office of Nuclear Reactor Regulation

Attachments:

1. Pages 3, 4, 5, and 6 of
License DPR-52
2. Changes to the Technical
Specifications

Date of Issuance: April 1, 1993

ATTACHMENT 1 TO LICENSE AMENDMENT NO. 207

FACILITY OPERATING LICENSE NO. DPR-52

DOCKET NO. 50-260

Revise License DPR-52 as follows:

Remove Page

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Insert Page

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- (2) Pursuant to the Act and 10 CFR Parts 40 and 70, to receive, possess, and use at any time source and special nuclear material as reactor fuel in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report as supplemented and amended;
 - (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 - (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or equipment and instrument calibration or associated with radioactive apparatus or components;
 - (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 3293 megawatts thermal.
 - (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 207, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- (3) In the operation of the facility, the licensee shall, pursuant to the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500), comply with all applicable thermal water quality standards of the State of Alabama and the United States.
- (4) The licensee is hereby granted an exemption from the requirements of General Design Criterion 4 with respect to high energy pipes outside containment in accordance with the condition set forth in the Technical Specifications, Section 3.6.G.2 which requires completion of those items listed in "Concluding Report on the Effects of Postulated Pipe Failure Outside of Containment for the Browns Ferry Nuclear Plant Units 2 and 3" and related to Unit 2 prior to startup of Unit 2 following the first refueling outage.
- (5) The facility may be modified by plugging the bypass flow holes in the lower core support plate as described in Browns Ferry Nuclear Plant Units 1 and 2 Safety Analysis Report for Plant Modifications to Eliminate Significant In-Core Vibrations (NEDC-21091), October 1975. The reactor shall not be operated with the plugs installed in the lower core support plate bypass flow holes without further authorization by the NRC.
- (5)(a) Deleted
- (6) The facility may be modified by drilling bypass flow holes in Type 2 and Type 3 fuel assemblies as described in NEDO-21091, "Browns Ferry Nuclear Plant, Units 1 & 2 Safety Analysis Report for Plant Modifications to Eliminate Significant In-Core Vibrations; and NEDE-21156, "Supplemental Information for Plant Modification to Eliminate Significant In-Core Vibrations," dated January 1976.
- (7) The facility may be modified as described in "Browns Ferry Nuclear Plant Units 1 and 2 Emergency Core Cooling Systems Low Pressure Coolant Injection Modifications for Performance Improvement (December 1975)" submitted by application dated December 1, 1975 and supplements dated February 12, 1976, March 24, 1976, March 30, 1976, May 21, 1976, June 11, 1976, and July 21, 1976.

- (8) The licensee shall maintain in effect and fully implement all provisions of the Commission approved physical security plan including amendments made pursuant to the authority of 10 CFR 50.54(p). The approved plan, which contains information protected under 10 CFR 73.21, is entitled "Browns Ferry Nuclear Plant Physical Security Plan," dated May 15, 1982 (TVA letter dated June 11, 1982) and revisions submitted by TVA letters dated August 31, 1982 and October 19, 1982.

Notwithstanding the statement in Section 9.1 of the physical security plan, the licensee shall maintain positive access control over containment in accordance with the requirements of 10 CFR 73.55(d)(8).

- (9) The facility may be modified as described in "Browns Ferry Nuclear Plant Units 1 and 2 Emergency Core Cooling Systems Low Pressure Coolant Injection Modifications For Performance Improvement (October 1977)" submitted by letter dated December 28, 1977 and supplemented by letter dated December 13, 1978.
- (10) The licensee shall follow all provisions of the NRC approved Guard Training & Qualification Plan, including amendments and changes made pursuant to 10 CFR 50.54(p). The approved Guard Training & Qualification Plan is identified as "Browns Ferry Nuclear Power Station Guard Training & Qualification Plan," dated August 17, 1979, as revised by pages dated January 24, 1980, May 21, 1980, October 1, 1980, and March 9, 1981 and as may subsequently be revised in accordance with 10 CFR 50.54(p). The Guard Training & Qualification Plan shall be followed, in accordance with 10 CFR 73.55(b), 60 days after the date of this amendment.
- (11) The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Browns Ferry Physical Security Plan", with revisions submitted through May 24, 1988; "Browns Ferry Security Personnel Training and Qualification Plan", with revisions submitted through April 16, 1987; and "Browns Ferry Safeguards Contingency Plan", with revisions submitted through June 27, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

- (12) The licensee is authorized to temporarily store low-level radioactive waste in an existing covered pavilion that is situated outside the security fence, as presently located, but inside the site exclusion area. The total amount of low-level waste to be stored shall not exceed 1320 curies of total activity. This authorization expires two years from the effective date of this amendment and is subject to all the conditions and restrictions in TVA's application dated January 21, 1980.
- (13) Commission Order dated March 25, 1983 is modified as follows: in Attachment 1, for item II.F.1.1 and II.F.1.2 change "12/31/84" to "Prior to startup in Cycle 6."
- (14) Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the SEs dated December 8, 1988, March 6, 1991, March 31, 1993 and Supplement dated November 3, 1989 subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- D. This amended license is effective as of the date of issuance and shall expire midnight on June 28, 2014.

FOR THE ATOMIC ENERGY COMMISSION

S/ A. Giambusso
A. Giambusso, Deputy Director
for Reactor Projects
Directorate of Licensing

Attachment:
Appendices A & B - Technical
Specifications

Date of Issuance: JUN 28, 1974

ATTACHMENT 2 TO LICENSE AMENDMENT NO. 207

FACILITY OPERATING LICENSE NO. DPR-52

DOCKET NO. 50-260

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change. Overleaf pages.*

REMOVE

iv
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1.0-12a

3.11/4.11-1
3.11/4.11-2
3.11/4.11-3
3.11/4.11-4
3.11/4.11-5
3.11/4.11-6
3.11/4.11-7
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INSERT

iii*
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viii*
1.0-12a
1.0-12b*
3.11/4.11-1
3.11/4.11-2

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6.0-7*
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D. Unit 3 Diesel Generators Required for Unit 2 Operation	3.9/4.9-15a

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DEFINITIONS (Cont)

NN. Appendix R Safe Shutdown Program

BFN has developed an Appendix R Safe Shutdown Program. This Program is to ensure that the equipment required by the Appendix R Safe Shutdown Analysis is maintained and demonstrated functional as follows:

1. The functional requirements of the Safe Shutdown systems and equipment, as well as appropriate compensatory measures should these systems/components be unable to perform their intended function are outlined in Section III of the Program.
2. Testing and monitoring of the Appendix R Safe Shutdown systems and equipment are defined in Section V of the Program.
3. Deleted

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3.11/4.11 FIRE PROTECTION SYSTEMS

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

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6.2.2 (Cont.)

- d. Two licensed reactor operators shall be in the control room during any cold startups, while shutting down the reactor, and during recovery from unit trip. In addition, a person holding a senior operator license shall be in the control room for that unit whenever it is in an operational mode other than cold shutdown or refueling.
- e. A Health Physics Technician* shall be present at the facility at all times when there is fuel in the reactor.
- f. A person holding a senior operator license or a senior operator license limited to fuel handling, shall be present during alteration of the core to directly supervise the activity and during this time shall not be assigned other duties.
- g. Deleted.

*The Health Physics Technician may be absent from the facility for a period of time not to exceed 2 hours provided immediate action is taken to fill the required position.

Table 6.2.A
Minimum Shift Crew Requirements^b

<u>Position</u>	<u>Units in Operation</u>				<u>Type of License</u>
	<u>0</u>	<u>1</u>	<u>2^d</u>	<u>3</u>	
Senior Operator ^a	1	1	1	1	SRO
Senior Operator	0	1	2	2	SRO
Licensed Operators	3	3	3	3	RO or SRO
Additional Licensed Operators ^c	0	1	2	2	RO or SRO
Assistant Unit Operators (AUO)	4	4	5	5	None
Shift Technical Advisor (STA)	0	1	1	1	None
Health Physics Technician	1	1	1	1	None

Note for Table 6.2.A

- a. A senior operator will be assigned responsibility for overall plant operation at all times there is fuel in any unit.
- b. Except for the senior operator discussed in note "a", the shift crew composition may be one less than the minimum requirements of Table 6.2.A for a period of time not to exceed two hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2.A. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent.
- c. One of the Additional Licensed Operators must be assigned to each control room with an operating unit.
- d. The number of required licensed personnel, when the operating units are controlled from a common control room, are two senior operators and four operators.

- 6.5.1.4 For expedited meetings, when it is not practical to convene as a group, the chairman or alternate chairman may conduct committee business by polling the members individually (by telephone or in person) or via a serialized review.

QUORUM

- 6.5.1.5 The quorum necessary for the PORC to act in a formal meeting shall consist of the chairman or alternate chairman and at least five members or their alternates. Members shall be considered present if they are in telephone communication with the committee.

RESPONSIBILITIES

- 6.5.1.6 The PORC shall be responsible for the activities listed below. The PORC may delegate the performance of reviews, but will maintain cognizance over and responsibility for them, e.g., subcommittees.
- a. Review of administrative procedures for the control of the technical and cross-disciplinary review of (1) all procedures required by Specification 6.8.1.1, and changes thereto, (2) any other procedures and changes thereto determined by the Plant Manager to affect nuclear safety.
 - b. Review of the administrative procedures required by Appendix A of Regulatory Guide 1.33, Revision 2, February 1978 and changes thereto.
 - c. Review of emergency operating procedures and changes thereto.
 - d. Review implementing procedures of the Radiological Emergency Plan and the Industrial Security Program.

6.5.1.6 (Cont.)

- e. Review of all proposed changes to the Technical Specifications.
- f. Review of safety evaluation for proposed tests or experiments to be completed under the provisions of 10 CFR 50.59
- g. Review proposed changes to the Radiological Effluent Manual.
- h. Review adequacy of the Process Control Program and Offsite Dose Calculation Manual at least once every 24 months.
- i. Review changes to the radwaste treatment systems.
- j. Review of every unplanned onsite release of radioactive material to the environs including the preparation and forwarding of reports covering evaluation, recommendation, and disposition of the corrective action to prevent recurrence to the Senior Vice President, Nuclear Power, and to the Nuclear Safety Review Board.
- k. Review of all safety evaluations for modifications to structures, systems or components that affect nuclear safety to verify that such actions did not constitute an unreviewed safety question as defined in 10 CFR 50.59, or requires a change to these Technical Specifications.

6.5.1.6 (Cont)

1. Review of reportable events, unusual events, operating anomalies, and abnormal performance of plant equipment.
- m. Investigate reported or suspected incidents involving safety questions or violations of the Technical Specifications.
- n. Review of unit operations to detect potential hazards to nuclear safety. Items that may be included in this review are NRC inspection reports, QA audit, NSRB audit results, American Nuclear Insurer (ANI) inspection results, and significant corrective action reports (CARs).
- o. Performance of special reviews, investigations, or analysis, and report thereon as requested by the Plant Manager or the Nuclear Safety Review Board.
- p. Review of the Fire Protection Program, "Fire Protection Report, Volume-1", and implementing procedures, "Safe Shutdown Instructions", and the submittal of PORC approved changes to Nuclear Safety Review Board.

AUTHORITY

6.5.1.7 The PORC shall:

- a. Recommend to the Plant Manager in writing, approval, or disapproval of items considered under 6.5.1.6.a through i above.
 1. The recommendation shall be based on a majority vote of the PORC at a formal meeting.
 2. The recommendation shall be based on a unanimous vote of the PORC when the PORC members are acting individually.
 3. Each member or alternate member shall have one vote.
- b. Furnish for consideration a determination in writing with regard to whether or not each item considered under 6.5.1.6.f above constitutes an unreviewed safety question.
- c. Make recommendations to the Plant Manager in writing that action reviewed under 6.5.1.6.k above did not constitute an unreviewed safety question.
- d. Provide written notification within 24 hours to the Site Director and the Nuclear Safety Review Board of disagreements between the PORC and the Plant Manager. However, the Plant Manager shall have responsibility for resolution of such disagreements pursuant to Specification 6.1.

REVIEW

6.5.2.7 The NSRB shall review:

- a. The safety evaluations for: (1) changes to procedures, equipment or systems, and (2) tests or experiments completed under the provision of Section 50.59, 10 CFR, to verify that such actions did not constitute an unreviewed safety question.
- b. Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- c. Proposed tests or experiments which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- d. Proposed changes to Technical Specifications or this Operating License.
- e. Violations of Codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.
- f. Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.
- g. All Reportable Events
- h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of structures, systems, or components that could affect nuclear safety; and
- i. Reports and meeting minutes of the PORC.

AUDITS

6.5.2.8 Audits of unit activities shall be performed under the cognizance of the NSRB. These audits shall encompass:

- a. The conformance of plant operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months.
- b. The performance, training and qualifications of the entire plant staff at least once per 12 months.
- c. The results of actions taken to correct deficiencies occurring in site equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months.
- d. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix B, 10 CFR Part 50, at least once per 24 months.
- e. The Site Radiological Emergency Plan and implementing procedures at least once every 12 months.
- f. The Plant Physical Security Plan and implementing procedures at least once every 12 months.
- g. Any other area of site operation considered appropriate by the NSRB or the Senior Vice President, Nuclear Power.
- h. The fire protection programmatic controls including the implementing procedures at least once per 24 months.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

- a. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within 1 hour. The Senior Vice President, Nuclear Power and the NSRB shall be notified within 24 hours.
- b. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PORC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems, or structures, and (3) corrective action taken to prevent recurrence.
- c. The Safety Limit Violation Report shall be submitted to the Commission, the NSRB, and the Senior Vice President, Nuclear Power within 14 days of the violation.
- d. Critical operation of the unit shall not be resumed until authorized by the Commission.

6.8 PROCEDURES/INSTRUCTIONS AND PROGRAMS

6.8.1 PROCEDURES

6.8.1.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.**
- b. Limitations on the amount of overtime worked by individuals performing safety-related functions in accordance with NRC Policy statement on working hours (Generic Letter No. 82-12).**
- c. Surveillance and test activities of safety-related equipment.**
- d. Security plan implementation.**
- e. Emergency plan implementation.**
- f. Fire Protection Program implementation.**
- g. Radiological Effluent Manual implementing procedures.**
- h. Process Control Program (PCP).**
- i. Offsite Dose Calculation Manual.**
- j. Administrative procedures which control technical and cross-disciplinary review.**



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TENNESSEE VALLEY AUTHORITY
DOCKET NO. 50-296
BROWNS FERRY NUCLEAR PLANT UNIT 3
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 164
License No. DPR-68

The Nuclear Regulatory Commission (the Commission) has found that:

- A. The application for amendment by Tennessee Valley Authority (the licensee) dated April 13, 1992, as supplemented March 19, 1993, 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 paragraphs 2.C.(2) and 2.C.(7) of Facility Operating License No. DPR-68 are hereby amended to read as follows:*

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.164, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- (7) Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the SEs dated December 8, 1988, March 6, 1991, March 31, 1993 and Supplement dated November 3, 1989 subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

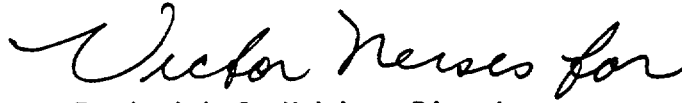
3. The license is also amended by a few format and numbering changes as follows:

page 5 - 2.D. becomes 2.C.(8)
page 5 - 2.D.(3) becomes 2.C.(9)
page 5 - 2.E. becomes 2.D.
Page 6 - 2.F. becomes 2.E.

*Pages 3, 4, 5, and 6 are attached, for convenience, for the composite license to reflect this change.

4. 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



Frederick J. Hebdon, Director
Project Directorate II-4
Division of Reactor Projects - I/11
Office of Nuclear Reactor Regulation

Attachments:

1. Pages 3, 4, 5, and 6 of
License DPR-68
2. Changes to the Technical
Specifications

Date of Issuance: April 1, 1993

ATTACHMENT 1 TO LICENSE AMENDMENT NO. 164

FACILITY OPERATING LICENSE NO. DPR-68

DOCKET NO. 50-296

Revise License DPR-68 as follows:

Remove Page

3
4
4a
5

Insert Page

3
4

5
6

- (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 - (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form for sample analysis or instrument calibration or associated with radioactive apparatus or components;
 - (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 3293 megawatts thermal.
 - (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 164, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.
 - (3) In the operation of the facility, the licensee shall, pursuant to the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500), comply with all applicable thermal water quality standards of the State of Alabama and the United States.

- (4) The licensee shall maintain in effect and fully implement all provisions of the Commission approved physical security plan including amendments made pursuant to the authority of 10 CFR 50.54(p). The approved plan, which contains information protected under 10 CFR 73.21, is entitled "Browns Ferry Nuclear Plant Physical Security Plan," dated May 15, 1982 (TVA letter dated June 11, 1982) and revisions submitted by TVA letters dated August 31, 1982 and October 19, 1982.

Notwithstanding the statement in Section 9.1 of the physical security plan, the licensee shall maintain positive access control over containment in accordance with the requirements of 10 CFR 73.55(d)(8).

- (5) The licensee shall follow all provisions of the NRC approved Guard Training & Qualification Plan, including amendments and changes made pursuant to 10 CFR 50.54(p). The approved Guard Training & Qualification Plan is identified as "Browns Ferry Nuclear Power Station Guard Training & Qualification Plan," dated August 17, 1979, as revised by pages dated January 24, 1980, May 21, 1980, October 1, 1980, and March 9, 1981 and as may subsequently be revised in accordance with 10 CFR 50.54(p). The Guard Training & Qualification Plan shall be followed, in accordance with 10 CFR 73.55(b), 60 days after the date of this amendment.
- (6) The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Browns Ferry Physical Security Plan", with revisions submitted through May 24, 1988; "Browns Ferry Security Personnel Training and Qualification Plan", with revisions submitted through April 16, 1987; and "Browns Ferry Safeguards Contingency Plan", with revisions submitted through June 27, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.
- (7) Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the SEs dated December 8, 1988, March 6, 1991, March 31, 1993 and Supplement dated November 3, 1989 subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- (8) The licensee shall maintain in effect and fully implement all provisions of the Commission's Staff-approved physical security plan, including amendments and changes made pursuant to the authority of 10 CFR 50.54(p). The approved security plan consists of a proprietary document titled, "Browns Ferry Nuclear Plant Physical Security Plan," which was submitted with the licensee's letter dated April 23, 1974, as supplemented by information submitted with letters dated June 27, 1974, and August 27, 1974.
- (9) The licensee is authorized to temporarily store low-level radioactive waste in an existing covered pavilion that is situated outside the security fence, as presently located, but inside the site exclusion area. The total amount of low-level waste to be stored shall not exceed 1320 curies of total activity. This authorization expires two years from the effective date of this amendment and is subject to all the conditions and restrictions in TVA's application dated January 21, 1980.

D. This license is subject to the following additional conditions:

(1) The licensee is required to assure that:

- (a) The plant unique analysis for torus support structures and attached piping for the facility meets the approved Mark I Owners Group short-term acceptance criteria when subjected to dynamic loads associated with a postulated loss-of-coolant accident. Should the licensee determine that the results of the plant unique analysis are not in conformance with the approved Mark I Owners Group short-term acceptance criteria, a specific action plan will be developed by the licensee for the facility and presented to the Commission.

This action plan will include as a minimum the following information:

- (1) The value of the load factor for which the criteria are satisfied.
 - (2) A description of proposed plant modifications or other action which will result in reduced loads or increased capacities that would satisfy the criteria.
 - (3) If a plant hardware modification is made, the acceptance criteria will be described on a plant unique basis.
- (b) Upon completion of the Mark I Owners Group long-term program related to dynamic loads associated with a postulated loss-of-coolant accident, areas of design found not meeting the original design safety margins approved for the construction permit will be modified on a timely schedule to restore the original design safety margins.

- (2) The licensee is required, upon completion of the Mark I Owners Group containment long-term program related to relief valve operation, to make such modifications on a timely basis as may be necessary to restore the original design safety margins approved for the construction permit and used for the design of the torus structures when subjected to relief valve operation.
 - (3) The facility may be modified as described in "Browns Ferry Nuclear Plant Unit 3 Emergency Core Cooling Systems Low Pressure Coolant Injection Modifications for Performance Improvement (October 1977)" and as described in TVA's letter of December 28, 1977 transmitting the aforementioned report and in TVA's supplemental letter of December 13, 1978.
 - (4) Commission Order dated March 25, 1983 is modified as follows:

In Attachment 1, for item II.F.1.1 and II.F.1.2 change "12/31/84" to "Prior to Unit 2 startup in Cycle 6."
- E. This amended license is effective as of the date of issuance and shall expire midnight on July 2, 2016.

FOR THE NUCLEAR REGULATORY COMMISSION

S/ R. C. DeYoung for
Roger S. Boyd, Director
Division of Project Management
Office of Nuclear Reactor Regulation

Attachment:
Appendices A & B -
Technical Specifications

Date of Issuance: JUL 2 1976

BFN
Unit 3

Amendment 1, 22, 23, 88, 138, 164

<u>REMOVE</u>	<u>INSERT</u>
	iii*
iv	iv
vii	vii
	viii*
3.11/4.11-1	3.11/4.11-1
3.11/4.11-2	3.11-4.11-2
3.11/4.11-3	--
3.11/4.11-4	--
3.11/4.11-5	--
3.11/4.11-6	--
3.11/4.11-7	--
3.11/4.11-8	--
3.11/4.11-9	--
3.11/4.11-10	--
3.11/4.11-11	--
3.11/4.11-12	--
3.11/4.11-13	--
3.11/4.11-14	--
3.11/4.11-15	--
3.11/4.11-16	--
3.11/4.11-17	--
3.11/4.11-18	--
3.11/4.11-19	--
3.11/4.11-20	--
3.11/4.11-21	--
3.11/4.11-22	--
3.11/4.11-23	--
3.11/4.11-24	--
6.0-3	6.0-3
	6.0-4*
6.0-9	6.0-9
	6.0-10*

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	G. Structural Integrity	3.6/4.6-13
	H. Snubbers	3.6/4.6-15
3.7/4.7	Containment Systems	3.7/4.7-1
	A. Primary Containment.	3.7/4.7-1
	B. Standby Gas Treatment System	3.7/4.7-13
	C. Secondary Containment.	3.7/4.7-16
	D. Primary Containment Isolation Valves	3.7/4.7-17
	E. Control Room Emergency Ventilation	3.7/4.7-19
	F. Primary Containment Purge System	3.7/4.7-21
	G. Containment Atmosphere Dilution System (CAD)	3.7/4.7-22
	H. Containment Atmosphere Monitoring (CAM) System H ₂ Analyzer	3.7/4.7-23a
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	A. Liquid Effluents	3.8/4.8-1
	B. Airborne Effluents	3.8/4.8-2
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	D. Mechanical Vacuum Pump	3.8/4.8-6
	E. Miscellaneous Radioactive Materials Sources	3.8/4.8-7
	F. Solid Radwaste	3.8/4.8-9
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	A. Refueling Interlocks	3.10/4.10-1
	B. Core Monitoring	3.10/4.10-4
	C. Spent Fuel Pool Water	3.10/4.10-7

<u>Section</u>	<u>Page No.</u>
D. Reactor Building Crane	3.10/4.10-8
E. Spent Fuel Cask	3.10/4.10-9
F. Spent Fuel Cask Handling-Refueling Floor. . . .	3.10/4.10-9
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5.1 Site Features	5.0-1
5.2 Reactor	5.0-1
5.3 Reactor Vessel	5.0-1
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5.5 Fuel Storage	5.0-1
5.6 Seismic Design	5.0-2

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4.2.F	Minimum Test and Calibration Frequency for Surveillance Instrumentation	3.2/4.2-53
4.2.G	Surveillance Requirements for Control Room Isolation Instrumentation.	3.2/4.2-55
4.2.H	Minimum Test and Calibration Frequency for Flood Protection Instrumentation	3.2/4.2-56
4.2.J	Seismic Monitoring Instrument Surveillance Requirements	3.2/4.2-57
4.2.K	Radioactive Gaseous Effluent Monitoring Instrumentation	3.2/4.2-61
4.2.L	ATWS-Recirculation Pump Trip (RPT) Instrumentation Surveillance.	3.2/4.2-62a
3.5-1	Minimum RHRSW and EECW Pump Assignment.	3.5/4.5-11
3.5.I	MAPLHGR Versus Average Planar Exposure.	3.5/4.5-21
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4.9.A.4.C	Voltage Relay Setpoints/Diesel Generator Start. . .	3.9/4.9-17
6.2.A	Minimum Shift Crew Requirements	6.0-4

LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Title</u>	<u>Page No.</u>
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4.8.1.b	Land Site Boundary	3.8/4.8-11

3.11/4.11 FIRE PROTECTION SYSTEMS

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

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6.2.2 (Cont.)

- d. Two licensed reactor operators shall be in the control room during any cold startups, while shutting down the reactor, and during recovery from unit trip. In addition, a person holding a senior operator license shall be in the control room for that unit whenever it is in an operational mode other than cold shutdown or refueling.
- e. A Health Physics Technician* shall be present at the facility at all times when there is fuel in the reactor.
- f. A person holding a senior operator license or a senior operator license limited to fuel handling, shall be present during alteration of the core to directly supervise the activity and during this time shall not be assigned other duties.
- g. Deleted.

*The Health Physics Technician may be absent from the facility for a period of time not to exceed 2 hours provided immediate action is taken to fill the required position.

Table 6.2.A
Minimum Shift Crew Requirements^b

<u>Position</u>	<u>Units in Operation</u>				<u>Type of License</u>
	0	1	2 ^d	3	
Senior Operator ^a	1	1	1	1	SRO
Senior Operator	0	1	2	2	SRO
Licensed Operators	3	3	3	3	RO or SRO
Additional Licensed Operators ^c	0	1	2	2	RO or SRO
Assistant Unit Operators (AUO)	4	4	5	5	None
Shift Technical Advisor (STA)	0	1	1	1	None
Health Physics Technician	1	1	1	1	None

Note for Table 6.2.A

- a. A senior operator will be assigned responsibility for overall plant operation at all times there is fuel in any unit.
- b. Except for the senior operator discussed in note "a", the shift crew composition may be one less than the minimum requirements of Table 6.2.A for a period of time not to exceed two hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2.A. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent.
- c. One of the Additional Licensed Operators must be assigned to each control room with an operating unit.
- d. The number of required licensed personnel, when the operating units are controlled from a common control room, are two senior operators and four operators.

6.5.1.6 (Cont.)

1. Review of reportable events, unusual events, operating anomalies, and abnormal performance of plant equipment.
- m. Investigate reported or suspected incidents involving safety questions or violations of the Technical Specifications.
- n. Review of unit operations to detect potential hazards to nuclear safety. Items that may be included in this review are NRC inspection reports, QA audit, NSRB audit results, American Nuclear Insurer (ANI) inspection results, and significant corrective action reports (CARs).
- o. Performance of special reviews, investigations, or analysis, and report thereon as requested by the Plant Manager or the Nuclear Safety Review Board.
- p. Review of the Fire Protection Program, "Fire Protection Report, Volume-1", and implementing procedures, "Safe Shutdown Instructions", and the submittal of PORC approved changes to the Nuclear Safety Review Board.

AUTHORITY

6.5.1.7 The PORC shall:

- a. Recommend to the Plant Manager in writing, approval, or disapproval of items considered under 6.5.1.6.a through i above.
 1. The recommendation shall be based on a majority vote of the PORC at a formal meeting.
 2. The recommendation shall be based on a unanimous vote of the PORC when the PORC members are acting individually.
 3. Each member or alternate member shall have one vote.
- b. Furnish for consideration a determination in writing with regard to whether or not each item considered under 6.5.1.6.f above constitutes an unreviewed safety question.
- c. Make recommendations to the Plant Manager in writing that action reviewed under 6.5.1.6.k above did not constitute an unreviewed safety question.
- d. Provide written notification within 24 hours to the Site Director and the Nuclear Safety Review Board of disagreements between the PORC and the Plant Manager. However, the Plant Manager shall have responsibility for resolution of such disagreements pursuant to Specification 6.1.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ENCLOSURE 4

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 192 TO FACILITY OPERATING LICENSE NO. DPR-33

AMENDMENT NO. 207 TO FACILITY OPERATING LICENSE NO. DPR-52

AMENDMENT NO. 164 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 13, 1992, as supplemented by letter dated March 19, 1993, the Tennessee Valley Authority (TVA, the licensee) submitted a request for changes to the Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3 Technical Specifications (TS). The March 19, 1993 letter, withdrew a portion of TVA's original TS amendment request. By virtue of this withdrawal, the Unit 2 TS definition NN. for the Appendix R Safe Shutdown Program will remain in the TS. This withdrawal does not change the initial proposed no significant hazards consideration determination. TVA has proposed that the existing license condition on fire protection be replaced with the standard condition noted in Generic Letter (GL) 86-10 and also proposed changes to Section 3.11/4.11 and 6.0 of the BFN TS. The proposed TS changes would relocate requirements for fire detection systems, fire suppression systems, fire barriers, and fire brigade staffing requirements from TS to the Fire Protection Program in accordance with the guidelines of GLs 86-10 and 88-12. Furthermore, the proposed TS changes would also modify the administrative control requirements in accordance with the same guidelines to add requirements regarding the Fire Protection Program.

2.0 BACKGROUND

Following the fire at the BFN on March 22, 1975, the Commission undertook a number of actions to ensure that improvements were implemented in the Fire Protection Programs for all power reactor facilities. Because of the extensive modification of Fire Protection Programs and the number of open issues resulting from staff evaluations, a number of revisions and alterations occurred in these programs over the years. Consequently, licensees were requested by GL 86-10 to incorporate the final NRC-approved Fire Protection Program in their updated Final Safety Analysis Reports (UFSARs). In this manner, the Fire Protection Program -- including the systems, the administrative and technical controls, the organization, and other plant features associated with fire protection -- would have a status consistent

with that of other plant features described in the FSAR. In addition, the Commission concluded that a standard license condition requiring compliance with the provisions of the Fire Protection Program as described in the FSAR, would be used to ensure uniform enhancement of fire protection requirements. Finally, the Commission stated that with the requested actions, licensees may request an amendment to delete the fire protection TS that would now be unnecessary. In this regard the Commission issued GL 88-12 to all licensees with additional guidance on how to remove fire protection requirements from TS.

3.0 EVALUATION

Generic Letters 86-10 and 88-12 recommended the removal of fire protection requirements from the TS. Although a comprehensive Fire Protection Program is essential to plant safety, the basis for this recommendation is that many details of this program that are currently addressed in TS can be modified without affecting nuclear safety. Such modifications can be made provided that there are suitable administrative controls over these changes. These details, that are presently included in TS and which are relocated by this amendment, do not constitute performance requirements necessary to ensure safe operation of the facility and, therefore, do not warrant being included in TS. At the same time, suitable regulatory controls ensure that there will be careful review and analysis by competent individuals of any changes in the Fire Protection Program including those technical and administrative requirements removed from the TS to ensure that nuclear safety is not adversely affected. These controls include: (1) the applicable administrative controls that remain in TS for the Fire Protection Program; (2) the license condition on implementation of, and subsequent changes to, the Fire Protection Program; and (3) the 10 CFR 50.59 criteria for evaluating changes to the Fire Protection Program as described in the FSAR.

The specific details relating to fire protection requirements to be removed from TS by this amendment include those specifications for fire detection systems, fire suppression systems, fire barriers, and fire brigade staffing requirements. The administrative control requirements will be modified to include Fire Protection Program implementation as an element for which written procedures must be established, implemented, and maintained. In addition, the responsibilities of the Plant Onsite Review Committee (PORC) would be expanded to include the review of the Fire Protection Program and implementing procedures and submittal of recommended changes to the Nuclear Safety Review Board (NSRB).

The license and TS changes proposed by TVA for BFN Units 1, 2, and 3 were found to be in accordance with the guidance provided by GLs 86-10 and 88-12, as identified below.

1. Specification 6.5.1.6.p, is added to include as part of PORC's responsibilities, the review of fire protection program implementation and the submittal of recommended changes to the NSRB.
2. Specification 6.2.2.g that prescribes minimum fire brigade staffing is deleted.

3. Specifications in Section 3.11/4.11 Fire Protection Systems, "Limiting Conditions for Operations/Surveillance Requirements" are deleted entirely, including Tables 3.11.A, 3.11.B, 3.11.C, 3.11.D, and associated bases.
4. The standard license condition for implementing and maintaining all provisions of the approved Fire Protection Program is added.
5. Existing license condition (Units 1 and 2 only) related to the March 22, 1975 fire is deleted.
6. Specifications 6.5.1.6.1, 6.5.2.8.h, and 6.8.1.1.f (Unit 2 only) are revised to delete reference to the Appendix R Safe Shutdown Program.
7. License Condition 2.C.(5)(a) (Unit 2 only) regarding the Appendix R Safe Shutdown Program is deleted.
8. Definition NN (Unit 2 only) regarding the Appendix R Safe Shutdown Program is revised to delete reference to License Condition 2.C.(5)(a).

As required by GL 86-10, TVA stated that the NRC-approved Fire Protection Program would be incorporated into the UFSAR. The staff subsequently verified that reference to the BFN Fire Protection Report has been incorporated into Section 10.11 of the BFN UFSAR. The BFN Fire Protection Report constitutes TVA's Fire Protection Program.

TVA confirmed, and the staff verified, that the operational conditions, remedial actions, and surveillance requirements associated with the removed fire protection TS have been included in the BFN Fire Protection Report in accordance with the guidance of GL 88-12. Furthermore, TVA has incorporated the Unit 2 Appendix R Safe Shutdown Program in the BFN Fire Protection Report. Consequently, the TS provisions and License Condition approved for BFN Unit 2 by License Amendment No. 192 dated March 6, 1991, are redundant and no longer necessary (See items 6, 7, and 8 above). However, TS definition NN. was not removed in order to comply with the guidelines of GL 88-12 which states that the specifications related to safe shutdown following a fire that were added per GL 81-12 should be retained.

On the basis of the aforementioned review, the staff concludes that TVA has met the guidance of GL 88-12. Therefore, the staff finds the proposed TS and License Condition changes 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 and change surveillance requirements. The amendments relate to changes in recordkeeping, reporting, or administrative procedures or requirements. 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 (57 FR 22270). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (10). 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 Contributors: T. Ross and J. Holmes

Date: April 1, 1993

UNITED STATES NUCLEAR REGULATORY COMMISSION

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNIT 2

DOCKET NO. 50-260

NOTICE OF PARTIAL WITHDRAWAL OF AN AMENDMENT REQUEST
TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (NRC) has approved the withdrawal of a portion of a Technical Specification (TS) amendment request by the Tennessee Valley Authority (TVA or the licensee) for an amendment to Facility Operating License No. DPR-52, issued to the Browns Ferry Nuclear Plant, Unit 2, respectively. The plant is located in Limestone County, Alabama. Notice of Consideration of Issuance of this amendment was published in the FEDERAL REGISTER on May 27, 1992 (57 FR 22270).

As part of the license amendment request dated April 13, 1992, TVA proposed to delete Definition NN., "Appendix R Safe Shutdown Program," from the Unit 2 TS. By letter dated March 19, 1993, the licensee has withdrawn this part from the original amendment request.

For further details with respect to this action, see (1) the application for amendments dated April 13, 1992, and (2) the licensee's letter dated March 19, 1993.

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These documents are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the Athens Public Library, South Street, Athens, Alabama 35611.

Dated at Rockville, Maryland, this 1st day of April , 1993.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Victor Nerses", is written over the typed name.

Victor Nerses, Acting Director
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation