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

Mr. Hugh G. Parris
Manager of Power
Tennessee Valley Authority
500A Chestnut Street, Tower II
Chattanooga, Tennessee 37401

NOV 24 1981



Dear Mr. Parris:

The Commission has issued the enclosed Amendment Nos. 78, 74 and 47 to Facility License Nos. DPR-33, DPR-52 and DPR-68 for the Browns Ferry Nuclear Plant, Unit Nos. 1, 2 and 3. These amendments are in response to your letter of March 4, 1981 (TVA BFNP TS 160), as supplemented by your letter of April 29, 1981.

These Amendments change the Technical Specifications to add operability and surveillance requirements on fire doors and dampers. These Amendments also delete conditions 2.D.(1) and 2.D.(2) from License Nos. DPR-33 and DPR-52. These conditions were added to these licenses by Amendment Nos. 27 and 24, issued August 20, 1976, and required you to complete certain modifications and other actions as part of the restoration program following the March 22, 1975 fire. Since the modifications and actions have been completed, the conditions are no longer pertinent and are being deleted, with present condition 2.D.(3) being renumbered as condition 2.C.(12).

Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

ORIGINAL SIGNED BY

Richard J. Clark, Project Manager
Operating Reactors Branch #2
Division of Licensing

Enclosures:

1. Amendment No. 78 to DPR-33
2. Amendment No. 74 to DPR-52
3. Amendment No. 47 to DPR-68
4. Safety Evaluation
5. Notice

cc: w/enclosures
See nextpage

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*Amendment #
for Notice only*

OFFICE	ORB#2 <i>SNorris</i>	ORB#2 <i>RClark</i>	ORB#2 <i>Tippito</i>	AD FOR <i>TNovak</i>	OELD <i>R. Clark</i>		
SURNAME	SNorris	RClark	Tippito	TNovak	R. Clark		
DATE	11/10/81	11/10/81	11/10/81	11/10/81	11/10/81		

Mr. Hugh G. Parris

cc:

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Chattanooga, Tennessee 37411



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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-259

BROWNS FERRY NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 78
License No. DPR-33


1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendments by Tennessee Valley Authority (the licensee) dated March 4, 1981, as supplemented by letter dated April 29, 1981, 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, Facility License No. DPR-33 is hereby amended by: (1) deleting paragraph 2.D.(1) and 2.D.(2), (2) renumbering paragraph 2.D.(3) to be paragraph 2.C.(12) and (3) changing paragraph 2.C(2) to read as follows:
 - (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 78, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 24, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 78

FACILITY OPERATING LICENSE NO. DPR-33

DOCKET NO. 50-259

Revise Appendix A as follows:

1. Replace the following page with the identically numbered page:

322

2. Marginal lines on this page indicate the area being revised. The overleaf page is not being revised and should be retained.

3.11 FIRE PROTECTION SYSTEMS

- E. All fire barrier penetrations, including cable penetration barriers, fire doors and fire dampers, in fire zone boundaries protecting safety related areas shall be functional at all times. With one or more of the required fire barrier penetrations non-functional within one hour establish a continuous fire watch on at least one side of the affected penetration or verify the OPERABILITY of fire detectors on at least one side of the non-functional fire barrier and establish an hourly fire watch patrol until the work is completed and the barrier is restored to functional status.
- F. The minimum in-plant fire protection organization and duties shall be as depicted in Figure 6.3-1.

4.11 FIRE PROTECTION SYSTEMS

- E. Each required fire barrier penetration shall be verified to be functional at least once per 18 months by a visual inspection, and prior to restoring a fire barrier to functional status following repairs or maintenance by performance of a visual inspection of the affected fire barrier penetration.



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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-260

BROWNS FERRY NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 74
License No. DPR-52

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendments by Tennessee Valley Authority (the licensee) dated March 4, 1981, as supplemented by letter dated April 29, 1981, 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, Facility License No. DPR-52 is hereby amended by: (1) deleting paragraph 2.D.(1) and 2.D.(2), (2) renumbering paragraph 2.D.(3) to be paragraph 2.C.(12) and (3) changing paragraph 2.C(2) to read as follows:
 - (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 74, 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Thomas K. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 24, 1981

ATTACHMENT TO LICENSE AMENDMENT NO.74

FACILITY OPERATING LICENSE NO. DPR-52

DOCKET NO. 50-260

Revise Appendix A as follows:

1. Replace the following page with the identically numbered page:

322

2. Marginal lines on this page indicate the area being revised. The Overleaf page is not being revised and should be retained.

3.11 FIRE PROTECTION SYSTEMS

- E. All fire barrier penetrations, including cable penetration barriers, fire doors and fire dampers, in fire zone boundaries protecting safety related areas shall be functional at all times. With one or more of the required fire barrier penetrations non-functional within one hour establish a continuous fire watch on at least one side of the affected penetration or verify the OPERABILITY of fire detectors on at least one side of the non-functional fire barrier and establish an hourly fire watch patrol until the work is completed and the barrier is restored to functional status.
- F. The minimum in-plant fire protection organization and duties shall be as depicted in Figure 6.3-1.

4.11 FIRE PROTECTION SYSTEMS

- E. Each required fire barrier penetration shall be verified to be functional at least once per 18 months by a visual inspection, and prior to restoring a fire barrier to functional status following repairs or maintenance by performance of a visual inspection of the affected fire barrier penetration.



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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-296

BROWNS FERRY NUCLEAR PLANT, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 47
License No. DPR-68


1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendments by Tennessee Valley Authority (the licensee) dated March 4, 1981, as supplemented by letter dated April 29, 1981, 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 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. 47, 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 24, 1981

ATTACHMENT TO LICENSE AMENDMENT NO.47

FACILITY OPERATING LICENSE NO. DPR-68

DOCKET NO. 50-296

Revise Appendix A as follows:

1. Remove the following page and replace with the identically numbered page:

354

2. Marginal lines on the above page indicate revised area.

3.11 FIRE PROTECTION SYSTEMS

- E. All fire barrier penetrations, including cable penetration barriers, fire doors and fire dampers, in fire zone boundaries protecting safety related areas shall be functional at all times. With one or more of the required fire barrier penetrations non-functional within one hour establish a continuous fire watch on at least one side of the affected penetration or verify the OPERABILITY of fire detectors on at least one side of the non-functional fire barrier and establish an hourly fire watch patrol until the work is completed and the barrier is restored to functional status.
- F. The minimum in-plant fire protection organization and duties shall be as depicted in Figure 6.3-1.

4.11 FIRE PROTECTION SYSTEMS

- E. Each required fire barrier penetration shall be verified to be functional at least once per 18 months by a visual inspection, and prior to restoring a fire barrier to functional status following repairs or maintenance by performance of a visual inspection of the affected fire barrier penetration.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO.78 TO FACILITY OPERATING LICENSE NO. DPR-33

AMENDMENT NO. 74 TO FACILITY OPERATING LICENSE NO. DPR-52

AMENDMENT NO. 47 TO FACILITY OPERATING LICENSE NO. DPR-68

TENNESSEE VALLEY AUTHORITY

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

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

1.0 Introduction

By letter dated March 4, 1981 (TVA BFNP TS 160) and supplemented by letter dated April 29, 1981, the Tennessee Valley Authority (the licensee or TVA) requested amendments to Facility Operating License Nos. DPR-33, DPR-52 and DPR-68 for the Browns Ferry Nuclear Plant, Unit Nos. 1, 2 and 3. The proposed amendments would revise the Technical Specifications appended to the above Facility Operating Licenses to add operability requirements for fire dampers and fire doors and add surveillance requirements for fire barrier penetrations. The proposed amendments would also modify an existing license condition on the fire suppression systems in the cable spreading room to make the wording consistent with the design approved by NRC and actually installed at the Browns Ferry Nuclear Plant (BFNP).

2.0 Discussion

The Technical Specifications (Section 6.2.8.j) require that an inspection and audit of the fire protection and loss prevention program at BFNP shall be performed by an outside qualified fire consultant at no greater than 3-year intervals. The audit report was issued October 2, 1980. The audit report noted that two of the license conditions included in the operating licenses for Units 1 and 2--specifically, paragraphs 2.D.(1).(c) and 2.D.(1).(d)--required TVA to have installed, by the first refueling outage, a manual sprinkler system in the cable spreading room and to have changed the manual carbon dioxide system in this area to automatic actuation. Contrary to these license requirements, the cable spreading rooms at all three Browns Ferry units are equipped with automatic water sprinkler systems and manual CO₂ systems.

Subsequent to issuance of the above license conditions, the NRC staff concluded as a result of an incident at another plant that an automatic CO₂ system presented a serious potential problem with respect to worker safety. Most cable spreading rooms contain equipment that must be routinely

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checked and/or maintained. If workers in the room were generating heat or a flame, such as during welding, a CO₂ system that activated automatically could asphyxiate them. We concluded that an automatic water sprinkler system, augmented by a manually controlled CO₂ system, would provide adequate fire suppression capability while significantly reducing the potential personnel safety problem. Accordingly, we requested TVA to install an automatic sprinkler system in each cable spreading room and to leave the manual CO₂ system as is. In their letter of April 20, 1978 (J. E. Gilleland, TVA, to G. Lear, NRR/NRC), TVA committed to install the systems in accordance with our request. TVA's letter, however, did not specifically request amendment of the license conditions to conform with the revised arrangement, and we did not take any action to correct the discrepancy. We did inspect the systems after the automatic sprinkler system was installed. And since the systems were installed and functioned as we requested, we concluded they were acceptable and the license conditions had been satisfied. We still conclude that the fire suppression systems as installed in the cable spreading room, namely, an automatic sprinkler and manual CO₂ system, provide adequate fire protection and should remain as installed. One of the changes being accomplished by these amendments is to conform the license conditions for Units 1 and 2 to agree with the approved, as-installed plant configuration. The operating license for Unit 3 previously contained similar conditions (paragraphs 2.E.(2) and 2.E.(3)). Since the license conditions were concluded to have been satisfactorily completed, these conditions were deleted when the license was changed by Amendment No. 22 to License DPR-68 issued May 4, 1979.

As a result of the outside fire protection audit noted above and the routine and special inspections conducted by the NRC's Office of Inspection and Enforcement, a number of violations and deviations were noted at BFPN in the fire protection/prevention program. As discussed in IE Inspection Report Nos. 50-259/81-01, 50-260/81-01 and 50-296/81-01, dated March 23, 1981, there were also conditions that were not in full conformance with National Fire Protection Association standards. The inspection found several fire doors that were either blocked open and fire doors on which the automatic closure mechanism was inoperative or which had improper latching hardware. There was also questions on the fire dampers installed in the fire doors to the battery rooms. It was noted that the present Technical Specifications describe the actions to be taken if a fire stop or cable penetration is breached, including posting a fire watch. The Technical Specifications do not specify the actions to be taken if a fire door, damper or other barrier is inoperative. TVA's proposed corrective action was to revise the Technical Specifications; the proposed revisions submitted by their letter of April 29, 1981 would add operational requirements on all fire barriers, including doors and dampers, along with requirements for a fire watch if a barrier is not functional. The proposed revisions would also add surveillance requirements on all barriers to check that items such as automatic door closures are functioning as intended.

3.0 Evaluation

As discussed above, one of the proposed changes as submitted by TVA is to change conditions 2.D.(1).(c) and 2.D.(1).(d) in the operating licenses for Units 1 and 2 to reflect that the primary fire suppression system in the cable spreading rooms is the automatically actuated water spray system and that the backup system is the manually activated carbon dioxide system. The basis for the change has been discussed above. While the proposed change as submitted by TVA is acceptable, these and the other conditions in paragraph D.(1) and D.(2) of the Unit 1 and 2 licenses are no longer apropos. The conditions in paragraph D.(1) and D.(2) were added to the Unit 1 and 2 licenses by Amendment Nos. 27 and 24 issued August 20, 1976. This paragraph enumerated the modifications and other requirements we required TVA to complete as a result of our "Safety Evaluation Supporting the Operation After the Restoration and Modification of the Browns Ferry Nuclear Plant, Units 1 and 2, Following the March 22, 1975 Fire" issued July 3, 1976. All of the modifications and specified actions were required to be completed by February 1978. We have previously reviewed the modifications and training program and concluded that they were satisfactorily completed. In the interest of keeping the licenses unencumbered with conditions that are no longer appropriate, our proposed action is to delete paragraphs 2.D.(1) and 2.D.(2) from the licenses. We have discussed this with the TVA staff and they agree with the proposed action.

As discussed in Section 2.0, the proposed change to the Technical Specifications is to add additional LCO and surveillance requirements in Section 3.11.E to clearly enunciate that all fire barrier penetrations, including fire doors and fire dampers, must be maintained operable and that a fire watch must be established if a barrier is not functional. The proposed changes were requested by us and are acceptable.

4.0 Environmental Considerations

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR 51.5(d)(4) that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of the amendments.

5.0 Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments

do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: November 24, 1981

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NOS. 50-259, 50-260, AND 50-296TENNESSEE VALLEY AUTHORITYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY
OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 78 to Facility Operating License No. DPR-33, Amendment No. 74 to Facility Operating License No. DPR-52, and Amendment No. 47 to Facility Operating License No. DPR-68 issued to Tennessee Valley Authority (the licensee), which revised the Technical Specifications for operation of the Browns Ferry Nuclear Plant, Unit Nos. 1, 2 and 3, located in Limestone County, Alabama, and the Licenses for Unit Nos. 1 and 2. The amendments are effective as of the date of issuance.

These amendments change the Technical Specifications to add operability and surveillance requirements on fire doors and dampers and delete two paragraphs from the licenses for Unit Nos. 1 and 2 which are no longer pertinent since the conditions have been completed.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration


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and environmental impact appraisal need not be prepared in connection with issuance of these amendments.

For further details with respect to this action, see (1) the application for amendments dated March 4, 1981, as supplemented by letter dated April 29, 1981, (2) Amendment No. 78 to License No. DPR-33, Amendment No. 74 to License No. DPR-52, and Amendment No. 47 to License No. DPR-68, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. and at the Athens Public Library, South and Forrest, Athens, Alabama 35611. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 24th day of November 1981

FOR THE NUCLEAR REGULATORY COMMISSION



Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing