September 19, 1985

Docket Nos. 50-259/260/296

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

Dear Mr. Parris:

The Commission has issued the enclosed Amendment Nos. 122 , 117 and 93 to Facility Operating License Nos. DPR-33, DPR-52 and DPR-68 for the Browns Ferry Nuclear Plant, Units 1, 2 and 3. These amendments are in response to your application dated June 26, 1985 (TVA BFNP TS 210).

The amendments change the Technical Specifications to revise the definition of "Secondary Containment Integrity" to permit maintenance on automatic isolation valves.

A copy of the Safety Evaluation is also enclosed.

Sincerely,

Richard J. Clark

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

Enclosures:
1. Amendment No. 122 to License No. DPR-33
2. Amendment No. 117 to License No. DPR-52
3. Amendment No. 93 to License No. DPR-68
4. Safety Evaluation

cc w/enclosures:
See next page

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Mr. Hugh G. Parris
Tennessee Valley Authority

Browns Ferry Nuclear Plant
Units 1, 2, and 3

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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-259

BROWNS FERRY NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 122
License No. DPR-33

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

   A. The application for amendment by Tennessee Valley Authority (the licensee) dated June 26, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C(2) of Facility Operating License No. DPR-33 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 122, 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 issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 19, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 122

FACILITY OPERATING LICENSE NO. DPR-33

DOCKET NO. 50-259

Revise Appendix A as follows:

1. Remove the following pages and replace with identically numbered pages.

4A, 4B

2. The marginal lines on these pages denote the area being changed.

P. Secondary Containment Integrity

1. Secondary containment integrity means that the reactor building is intact and the following conditions are met:

   a) At least one door in each access opening to the turbine building, control bay and out-of-doors is closed.

   b) The standby gas treatment system is operable and can maintain 0.25 inches of water negative pressure in those areas where secondary containment integrity is stated to exist.

   c) All secondary containment penetrations required to be closed during accident conditions are either:
      1. Capable of being closed by an operable secondary containment automatic isolation system, or
      2. Closed by at least one secondary containment automatic isolation valve deactivated in the isolated position.

2. Reactor zone secondary containment integrity means the unit reactor building is intact and the following conditions are met:

   a) At least one door between any opening to the turbine building, control bay and out-of-doors is closed.

   b) The standby gas treatment system is operable and can maintain 0.25 inches water negative pressure on the unit zone.

   c) All the unit reactor building ventilation system penetrations required to be closed during accident conditions are either:
      1. Capable of being closed by an operable reactor building ventilation system automatic isolation system, or
      2. Closed by at least one reactor building ventilation system automatic isolation valve deactivated in the isolated position.

If it is desirable for operational considerations, a reactor zone may be isolated from the other reactor zones and the refuel zone by maintaining at least one closed door in each common passageway between zones.* Reactor zone safety related features are not compromised by openings between adjacent units or refuel zone, unless it is desired to isolate a given zone.

* To effectively control zone isolation, all accesses to the affected zone will be locked or guarded to prevent uncontrolled passage to the affected zones.

3. Refuel zone secondary containment integrity means the refuel zone is intact and the following conditions are met:

   a) At least one door in each access opening to the out-of-doors is closed.

   b) The standby gas treatment system is operable and can maintain 0.25 inches water negative pressure on the refuel zone.

   c) All refuel zone ventilation system penetrations required to be closed during accident conditions are either:
      1. Capable of being closed by an operable refuel zone ventilation system automatic isolation system, or
      2. Closed by at least one refuel zone ventilation system automatic isolation valve deactivated in the isolated position.

   If it is desirable for operational considerations, the refuel zone may be isolated from the reactor zones by maintaining all hatches in place between the refuel floor and reactor zones and at least one closed door in each access between the refuel zone and the reactor building.* Refuel zone safety related features are not compromised by openings between the reactor building unless it is desired to isolate a given zone.

   * To effectively control zone isolation, all accesses to the affected zone will be locked or guarded to prevent uncontrolled passage to the unaffected zones.

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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-260

BROWNS FERRY NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 117
License No. DPR-52

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

   A. The application for amendment by Tennessee Valley Authority (the licensee) dated June 26, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C(2) of Facility Operating License No. DPR-52 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 117, 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 issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 19, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 117

FACILITY OPERATING LICENSE NO. DPR-52

DOCKET NO. 50-260

Revise Appendix A as follows:

1. Remove the following pages and replace with identically numbered pages.

4A, 4B

2. The marginal lines on these pages denote the area being changed.

P. Secondary Containment Integrity

1. Secondary containment integrity means that the reactor building is intact and the following conditions are met:

   a) At least one door in each access opening to the turbine building, control bay and out-of-doors is closed.

   b) The standby gas treatment system is operable and can maintain 0.25 inches of water negative pressure in those areas where secondary containment integrity is stated to exist.

   c) All secondary containment penetrations required to be closed during accident conditions are either:
      1. Capable of being closed by an operable secondary containment automatic isolation system, or
      2. Closed by at least one secondary containment automatic isolation valve deactivated in the isolated position.

2. Reactor zone secondary containment integrity means the unit reactor building is intact and the following conditions are met:

   a) At least one door between any opening to the turbine building, control bay and out-of-doors is closed.

   b) The standby gas treatment system is operable and can maintain 0.25 inches water negative pressure on the unit zone.

   c) All the unit reactor building ventilation system penetrations required to be closed during accident conditions are either:
      1. Capable of being closed by an operable reactor building ventilation system automatic isolation system, or
      2. Closed by at least one reactor building ventilation system automatic isolation valve deactivated in the isolated position.

If it is desirable for operational considerations, a reactor zone may be isolated from the other reactor zones and the refuel zone by maintaining at least one closed door in each common passageway between zones.* Reactor zone safety related features are not compromised by openings between adjacent units or refuel zone, unless it is desired to isolate a given zone.

* To effectively control zone isolation, all accesses to the affected zone will be locked or guarded to prevent uncontrolled passage to the affected zones.

3. Refuel zone secondary containment integrity means the refuel zone is intact and the following conditions are met:

   a) At least one door in each access opening to the out-of-doors is closed.

   b) The standby gas treatment system is operable and can maintain 0.25 inches water negative pressure on the refuel zone.

   c) All refuel zone ventilation system penetrations required to be closed during accident conditions are either:
      1. Capable of being closed by an operable refuel zone ventilation system automatic isolation system, or
      2. Closed by at least one refuel zone ventilation system automatic isolation valve deactivated in the isolated position.

   If it is desirable for operational considerations, the refuel zone may be isolated from the reactor zones by maintaining all hatches in place between the refuel floor and reactor zones and at least one closed door in each access between the refuel zone and the reactor building.* Refuel zone safety related features are not compromised by openings between the reactor building unless it is desired to isolate a given zone.

   * To effectively control zone isolation, all accesses to the affected zone will be locked or guarded to prevent uncontrolled passage to the unaffected zones.

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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-296

BROWNS FERRY NUCLEAR PLANT, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 93
License No. DPR-68

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

   A. The application for amendment by Tennessee Valley Authority (the licensee) dated June 26, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C(2) of Facility Operating License No. DPR-68 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 93 , 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 issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 19, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 93

FACILITY OPERATING LICENSE NO. DPR-68

DOCKET NO. 50-296

Revise Appendix A as follows:

1. Remove the following pages and replace with identically numbered pages.

4A, 4B

2. The marginal lines on these pages denote the area being changed.

P. Secondary Containment Integrity

1. Secondary containment integrity means that the reactor building is intact and the following conditions are met:

   a) At least one door in each access opening to the turbine building, control bay and out-of-doors is closed.

   b) The standby gas treatment system is operable and can maintain 0.25 inches of water negative pressure in those areas where secondary containment integrity is stated to exist.

   c) All secondary containment penetrations required to be closed during accident conditions are either:
      1. Capable of being closed by an operable secondary containment automatic isolation system, or
      2. Closed by at least one secondary containment automatic isolation valve deactivated in the isolated position.

2. Reactor zone secondary containment integrity means the unit reactor building is intact and the following conditions are met:

   a) At least one door between any opening to the turbine building, control bay and out-of-doors is closed.

   b) The standby gas treatment system is operable and can maintain 0.25 inches water negative pressure on the unit zone.

   c) All the unit reactor building ventilation system penetrations required to be closed during accident conditions are either:
      1. Capable of being closed by an operable reactor building ventilation system automatic isolation system, or
      2. Closed by at least one reactor building ventilation system automatic isolation valve deactivated in the isolated position.

If it is desirable for operational considerations, a reactor zone may be isolated from the other reactor zones and the refuel zone by maintaining at least one closed door in each common passageway between zones.* Reactor zone safety related features are not compromised by openings between adjacent units or refuel zone, unless it is desired to isolate a given zone.

* To effectively control zone isolation, all accesses to the affected zone will be locked or guarded to prevent uncontrolled passage to the affected zones.

3. Refuel zone secondary containment integrity means the refuel zone is intact and the following conditions are met:

   a) At least one door in each access opening to the out-of-doors is closed.

   b) The standby gas treatment system is operable and can maintain 0.25 inches water negative pressure on the refuel zone.

   c) All refuel zone ventilation system penetrations required to be closed during accident conditions are either:
      1. Capable of being closed by an operable refuel zone ventilation system automatic isolation system, or
      2. Closed by at least one refuel zone ventilation system automatic isolation valve deactivated in the isolated position.

   If it is desirable for operational considerations, the refuel zone may be isolated from the reactor zones by maintaining all hatches in place between the refuel floor and reactor zones and at least one closed door in each access between the refuel zone and the reactor building.* Refuel zone safety related features are not compromised by openings between the reactor building unless it is desired to isolate a given zone.

   * To effectively control zone isolation, all accesses to the affected zone will be locked or guarded to prevent uncontrolled passage to the unaffected zones.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 122 TO FACILITY OPERATING LICENSE NO. DPR-33

AMENDMENT NO. 117 TO FACILITY OPERATING LICENSE NO. DPR-52

AMENDMENT NO. 93 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 June 26, 1985 (TS 210) 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, Units 1, 2 and 3. The amendments would revise the Appendix A Technical Specifications to permit maintenance on automatic isolation valves in the secondary containment ventilation system during periods when secondary containment integrity is required.

2.0 DISCUSSION AND EVALUATION

Each secondary containment ventilation system penetration contains two automatic isolation valves in a series configuration. Under the terms of the definition of Secondary Containment Integrity, (Technical Specification Section 1.0.P), for secondary containment integrity to exist, each valve must be either (1) operable, or (2) deactivated in the closed position. These restrictions do not permit valve maintenance when secondary containment integrity is required. The amendment would revise Section 1.0.P such that secondary containment integrity also exists as long as either one of the two valves in each penetration is deactivated in the closed position. Deactivation of a single valve in the isolated position is sufficient to ensure that the secondary containment function can be fulfilled and will permit maintenance on the other valve. With one valve in a closed deactivated condition, no single active or passive failure can result in loss of the isolation function for that penetration and containment isolation is not dependent upon any automatic or manual action. As a result, an equal or greater margin of safety is maintained. The proposed amendment is therefore acceptable.

3.0 ENVIRONMENTAL CONSIDERATIONS

The amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The 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. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

4.0 CONCLUSION

We have 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, and (2) 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.

Principal Contributor: L. Ruth

Dated: September 19, 1985