Docket Nos. 50-259/260/296

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

Dear Mr. Parris:

The Commission has issued the enclosed Amendment Nos. 125, 120 and 96 to Facility Operating 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 application dated April 8, 1985 (TVA BFNP TS 208) and are effective in 90 days.

The amendments change the Technical Specifications to clarify requirements relating to (1) Units 1, 2 and 3 main steam line flow instruments, (2) Unit 1 containment air dilution valves, (3) Units 1, 2 and 3 fire protection systems, (4) Unit 1 SDJV level switches, and (5) Unit 1 containment penetrations.

A copy of the Safety Evaluation is also enclosed.

Sincerely,

Original signed by Richard J. Clark Richard J. Clark, Project Manager BWR Project Directorate #2 Division of BWR Licensing

#### Enclosures:

- Amendment No. 125 to License No. DPR-33
- 2. Amendment No. 120 to License No. DPR-52
- 3. Amendment No. 96 to License No. DPR-68
- 4. Safety Evaluation

cc w/enclosures: See next page

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\*Please see previous concurrence page

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8601020487 851218 PDR ADOCK 05000259 PDR Mr. Hugh G. Parris Tennessee Valley Authority

cc: H. S. Sanger, Jr., Esquire General Counsel Tennessee Valley Authority 400 Commerce Avenue E 11B 330 Knoxville, Tennessee 37902

Mr. Ron Rogers Tennessee Valley Authority 400 Chestnut Street, Tower II Chattanooga, Tennessee 37401

Mr. Charles R. Christopher Chairman, Limestone County Commission Post Office Box 188 Athens, Alabama 35611

Ira L. Meyers, M.D. State Health Officer State Department of Public Health State Office Building Montgomery, Alabama 36130

Mr. K. W. Whitt E3A8 400 West Summit Hill Drive Tennessee Valley Authority Knoxville, Tennessee 37902

Regional Administrator, Region II U. S. Nuclear Regulatory Commission 101 Marietta Street, Suite 3100 Atlanta, Georgia 30303

Mr. Steven Roessler
U. S. Nuclear Regulatory Commission
Reactor Training Center
Osborne Office Center, Suite 200
Chattanooga, Tennessee 37411

Browns Ferry Nuclear Plant Units 1, 2, and 3

James A. Coffey Site Director, BFNP Tennessee Valley Authority Post Office Box 2000 Decatur, Alabama 35602

Resident Inspector U. S. Nuclear Regulatory Commission Route 2, Box 311 Athens, Alabama 35611

Mr. Donald L. Williams, Jr. Tennessee Valley Authority 400 West Summit Hill Drive, W10B85 Knoxville, Tennessee 37902

Robert L. Lewis, Manager, BFNP Tennessee Valley Authority Post Office Box 2000 Decatur, Alabama 35602



# 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. 125 License No. DPR-33

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Tennessee Valley Authority (the licensee) dated April 8, 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:

8601020493 851218 PDR ADOCK 05000259

# (2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 125, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Daniel R. Muller, Director BWR Project Directorate #2 Division of BWR Licensing

Attachment: Changes to the Technical Specifications

Date of Issuance: December 18, 1985

# ATTACHMENT TO LICENSE AMENDMENT NO. 125

# FACILITY OPERATING LICENSE NO. DPR-33

# DOCKET NO. 50-259

# Revise Appendix A as follows:

1. Remove the following page.

248A

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

37

40

60

256

315

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

# TABLE 4.1.A REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION FUNCTIONAL TESTS MINIMUM FUNCTIONAL TEST FREQUENCIES FOR SAFETY INSTR. AND CONTROL CIRCUITS

<u> </u>	•	Cma (2)	<b>-</b>	
	Mode Switch in Shutdown	Group (2)	Functional Test	Minimum Frequency (3)
ا ان		A	Place Mode Switch in Shutdown	Each Refueling Outage
	Manual Scram	Α	Trip Channel and Alarm	Every 3 Months
	IRM High Flux	С	Trip Channel and Alarm (4)	Once/Week During Refueling and Before Each Startup
	Inoperative	С	Trip Channel and Alarm (4)	Once/Week During Refueling and Before Each Startup
	APRM High Flux (15% scram)	С	Trip Output Relays (4)	Before Each Startup and Weekly When Required to be Operable
	High Flux (Flow Biased)	В	Trip Output Relays (4)	Once/Week
	High Flux (Fixed Trip)	В	Trip Output Relays (4)	Once/Week
	Inoperative	В	Trip Output Relays (4)	Once/Week
	Downscale	В	Trip Output Relays (4)	Once/Week
	Flow Bias	В	(6)	(6)
	High Reactor Pressure	A	Trip Channel and Alarm	
	High Drywell Pressure	A	Trip Channel and Alarm	Once/Month (1)
	Reactor Low Water Level	A		Once/Month (1)
	High Water Level in Scram Discharge Tank	Α	Trip Channel and Alarm	Once/Month (1)
	Float Switches (LS-85-45C-F)	A	Trip Channel and Alarm	Once/Month
1	Electronic Level Switches (LS-85-45A,B,G,H)	A	Trip Channel and Alarm	Once/Month
	Main Steam Line High Radiation	В	Trip Channel and Alarm (4)	Once/3 months (8)

TABLE 4.1.B

REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION CALIBRATION
MINIMUM CALIBRATION FREQUENCIES FOR REACTOR PROTECTION INSTRUMENT CHANNELS

	Instrument Channel	Group (1)	Calibration	Minimum Frequency (2)
	IRM High Flux	С	Comparison to APRM on Controlled Startups (6)	Note (4)
	APRM High Flux			
	Output Signal	В	Heat Balance	Once/7 days
	Flow Bias Signal	В	Calibrate Flow Bias Signal (7)	Once/Operating cycle
	LPRM Signal	В	TIP System Traverse (8)	Every 1000 Effective Full Power Hours
	High Reactor Pressure	A	Standard Pressure Source	Every 3 Months
	High Drywell Pressure	A	Standard Pressure Source	Every 3 Months
	Reactor Low Water Level	Α	Pressure Standard	Every 3 Months
ı	High Water Level in Scram Discharge Volume			•
	Electronic Lvl Switches (LS-85-45-A,B,G,H)	Α	Calibrated Water Column (5)	Note (5)
	Float Switches (LS-85-45C-F)	Α	Calibrated Water Column (5)	Note (5)
	Main Steam Line Isolation Valve Closure	A	Note (5)	Note (5)
	Main Steam Line High Radiation	в :	Standard Current Source (3)	Every 3 Months
	Turbine First Stage Pressure Permissive (PT-1-81A,B & PT-1-91A,	В)	Standard Pressure Source	Once/Operating Cycle(9)
	Turbine Control Valve Fast Closure or Turbine Trip	A	Standard Pressure Source	Once/Operating Cycle
	Turbine Stop Valve Closure	A	Note (5)	Note (5)

#### NOTES FOR TABLE 3.2.A

1. Whenever the respective functions are required to be operable, there shall be two operable or tripped trip systems for each function.

If the first column cannot be met for one of the trip systems, that trip system or logic for that function shall be tripped (or the appropriate action listed below shall be taken). If the column cannot be met for all trip systems, the appropriate action listed below shall be taken.

- A. Initiate an orderly shutdown and have the reactors in Cold Shutdown Condition in 24 hours.
- B. Initiate an orderly load reduction and have Main Steam Lines isolated within eight hours.
- C. Isolate Reactor Water Cleanup System.
- D. Isolate Shutdown Cooling
- E. Initiate primary containment isolation within 24 hours.
- F. The handling of spent fuel will be prohibited and all operations over spent fuels and open reactor wells shall be prohibited.
- G. Isolate the reactor building and start the standby gas treatment system.
- H. Immediately perform a logic system functional test on the logic in the other trip systems and daily thereafter not to exceed 7 days.
- I. No action required. Reactor zone walls and ceiling designed above suction pressure of the SGTS.
- J. Withdraw TIP.
- K. Manually isolate the affected lines. Refer to section 4.2.E for the requirements of an inoperable system.
- L. If one SGTS train is inoperable take actions H or action A and F. If two SGTS trains are inoperable take actions A and F.
- 2. When it is determined that a channel is failed in the unsafe condition, the other channels that monitor the same variable shall be functionally tested immediately before the trip system or logic for that function is tripped. The trip system or the logic for that function may remain untripped for short periods of time to allow functional testing of the other trip system or logic for that function.
- 3. There are four sensors per steam line of which at least one sensor per trip system must be operable.
- 4. Only required in Rum Mode (interlocked with Mode Switch).
- 5. Not required in Run Mode (bypassed by mode switch).

# TABLE 3.7.B TESTABLE PENETRATIONS WITH DOUBLE O-RING SEALS

	Penetration No.	<u>Identification</u>
	X-1A	Equipment Hatch
	X-1B	Equipment Hatch
ţ	X-4	Head Access, Drywell
	X-6	CRD Removal Hatch
ŧ	X-25	Flange on 64-18
1	X-25	Flange on 64-19
1	X-25	Flange on 84-8A
	X-25	Flange on 84-8D
1	X-26	Flange on 64-31
1	X-26	Flange on 64-34
٠	X-35A	TIP Drive
	X-35B	TIP Drive
	X-35C	TIP Drive
	X-35D	TIP Drive
	X-35E	TIP Drive
	X-35F	TIP Indexer Purge
i	X-35G	Spare
	X-47	Power Operation Test
	X-200A	Suppression Chamber Access Hatch
	X-200B	Suppression Chamber Access Hatch
1		Drywell Head
ì	-	Shear Lug No. 1
	-	Shear Lug No. 2
	-	Shear Lug No. 3
	-	Shear Lug No. 4
	-	Shear Lug No. 5
	-	Shear Lug No. 6
	-	Shear Lug No. 7
	-	Shear Lug No. 8
1	X-205	Flange on 64-20
	X-205	Flange on 64-21
	X-205	Flange on 84-8B
	X-205	Flange on 84-8C
	X-205	Flange on 76-19
-	X-205	Flange on 76-18
	X-223	Suppression Chamber Access Hatch
	X-231	Flange on 64-29
ı	X-231	Flange on 64-32

#### 3.11 FIRE PROTECTION SYSTEMS

Applicability: Applies to the operating status of the applicable fire suppression and/or detection systems for the reactor building, diesel generator buildings, control bay, intake pumping station, cable tunnel to the intake pumping station, and cable trays along the south wall of the turbine building, elevation 586.

#### Objective:

To assure availability of Fire Protection Systems.

#### Specification:

- A. <u>High Pressure Fire</u> <u>Protection System</u>
  - 1. The High Pressure Fire Protection System shall have:
    - a. Two (2) high pressure fire pumps operable and aligned to the high pressure fire header.
    - b. Automatic initiation logic operable.

#### 4.11 FIRE PROTECTION SYSTEMS

Applicability: Applies to the surveillance requirements of the applicable fire suppression and/or detection systems for the reactor building, diesel generator buildings, control bay, intake pumping station, cable tunnel to the intake pumping station, and cable trays along the south wall of the turbine building, elevation 586 when the corresponding limiting conditions for operation are in effect.

#### Objective:

To verify the operability of the Fire Protection Systems.

#### Specification:

- A. <u>High Pressure Fire</u> Protection System
  - High Pressure Fire Protection System Testing:

#### <u>Item</u>

## Frequency

- a. Simulated Once/year automatic and manual actuation of high pressure pumps and automatic valve operability
- c. Deleted
- d. Pump Once/3 year capability



# 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. 120 License No. DPR-52

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Tennessee Valley Authority (the licensee) dated April 8, 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.
- 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) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 120, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Janul R. Mall

Daniel R. Muller, Director BWR Project Directorate #2 Division of BWR Licensing

Attachment: Changes to the Technical Specifications

Date of Issuance: December 18, 1985

# ATTACHMENT TO LICENSE AMENDMENT NO. 120

# 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.

60

315

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

#### NOTES FOR TABLE 3.2.A

1. Whenever the respective functions are required to be operable, there shall be two operable or tripped trip systems for each function.

If the first column cannot be met for one of the trip systems, that trip system or logic for that function shall be tripped (or the appropriate action listed below shall be taken). If the column cannot be met for all trip systems, the appropriate action listed below shall be taken.

- A. Initiate an orderly shutdown and have the reactors in Cold Shutdown Condition in 24 hours.
- B. Initiate an orderly load reduction and have Main Steam Lines isolated within eight hours.
- C. Isolate Reactor Water Cleanup System.
- D. Isolate Shutdown Cooling
- E. Initiate primary containment isolation within 24 hours.
- F. The handling of spent fuel will be prohibited and all operations over spent fuels and open reactor wells shall be prohibited.
- G. Isolate the reactor building and start the standby gas treatment system.
- H. Immediately perform a logic system functional test on the logic in the other trip systems and daily thereafter not to exceed 7 days.
- I. No action required. Reactor zone walls and ceiling designed above suction pressure of the SGTS.
- J. Withdraw TIP.
- K. Manually isolate the affected lines. Refer to section 4.2.E for the requirements of an inoperable system.
- L. If one SGTS train is inoperable take actions H or action A and F. If two SGTS trains are inoperable take actions A and F.
- 2. When it is determined that a channel is failed in the unsafe condition, the other channels that monitor the same variable shall be functionally tested immediately before the trip system or logic for that function is tripped. The trip system or the logic for that function may remain untripped for short periods of time to allow functional testing of the other trip system or logic for that function.
- 3. There are four sensors per steam line of which at least one sensor per trip system must be operable.
- 4. Only required in Run Mode (interlocked with Mode Switch).
- 5. Not required in Run Mode (bypassed by mode switch).

#### 3.11 FIRE PROTECTION SYSTEMS

Applicability: Applies to the operating status of the applicable fire suppression and/or detection systems for the reactor building, diesel generator buildings, control bay, intake pumping station, cable tunnel to the intake pumping station, and cable trays along the south wall of the turbine building, elevation 586.

#### Objective:

To assure availability of Fire Protection Systems.

#### Specification:

- A. <u>High Pressure Fire</u> <u>Protection System</u>
  - 1. The High Pressure Fire Protection System shall have:
    - a. Two (2) high pressure fire pumps operable and aligned to the high pressure fire header.
    - b. Automatic initiation logic operable.

#### 4.11 FIRE PROTECTION SYSTEMS

Applicability: Applies to the surveillance requirements of the applicable fire suppression and/or detection systems for the reactor building, diesel generator buildings, control bay, intake pumping station, cable tunnel to the intake pumping station, and cable trays along the south wall of the turbine building, elevation 586 when the corresponding limiting conditions for operation are in effect.

#### Objective:

To verify the operability of the Fire Protection Systems.

#### Specification:

- A. <u>High Pressure Fire</u> Protection System
  - 1. High Pressure Fire Protection System Testing:

#### Item

#### Frequency

- a. Simulated Once/year automatic and manual actuation of high pressure pumps and automatic valve operability
- b. Pump Once/month
   Operability
- c. Deleted
- d. Pump Once/3 year capability



# 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. 96 License No. DPR-68

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Tennessee Valley Authority (the licensee) dated April 8, 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) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 96, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Janul & Mulh

Daniel R. Muller, Director BWR Project Directorate #2

Division of BWR Licensing

Attachment: Changes to the Technical Specifications

Date of Issuance: December 18, 1985

# ATTACHMENT TO LICENSE AMENDMENT NO. 96 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.

63

347

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

- 3. There are four sensors per steam line of which at least one sensor per trip system must be operable.
- 4. Only required in Run Mode (interlocked with Mode Switch).
- 5. Not required in Run Mode (bypassed by mode switch).
- 6. Channel shared by RPS and Primary Containment & Reactor Vessel Isolation Control System. A channel failure may be a channel failure in each system.
- 7. A train is considered a trip system.
- 8. Two out of three SGTS trains required. A failure of more than one will require action A and F.
- 9. There is only one trip system with auto transfer to two power sources.
- 10. Refer to Table 3.7.A and its notes for a listing of Isolation Valve Groups and their initiating signals.
- 11. A channel may be placed in an inoperable status for up to four hours for required surveillance without placing the trip system in the tripped condition provided at least one OPERABLE channel in the same trip system is monitoring that parameter.
- 12. A channel contains four sensors, all of which must be operable for the channel to be operable.

#### 3.11 FIRE PROTECTION SYSTEMS

Applicability: Applies to the operating status of the applicable fire suppression and/or detection systems for the reactor building, diesel generator buildings, control bay, intake pumping station, cable tunnel to the intake pumping station, and cable trays along the south wall of the turbine building, elevation 586.

#### Objective:

To assure availability of Fire Protection Systems.

#### Specification:

- A. <u>High Pressure Fire</u> Protection System
  - 1. The High Pressure Fire Protection System shall have:
    - a. Two (2) high pressure fire pumps operable and aligned to the high pressure fire header.
    - b. Automatic initiation logic operable.

#### 4.11 FIRE PROTECTION SYSTEMS

Applicability: Applies to the surveillance requirements of the applicable fire suppression and/or detection systems for the reactor building, diesel generator buildings, control bay, intake pumping station, cable tunnel to the intake pumping station, and cable trays along the south wall of the turbine building, elevation 586 when the corresponding limiting conditions for operation are in effect.

#### Objective:

To verify the operability of the Fire Protection Systems.

#### Specification:

- A. <u>High Pressure Fire</u> <u>Protection System</u>
  - High Pressure Fire Protection System Testing:

#### Item

#### Frequency

- a. Simulated Once/year automatic and manual actuation of high pressure pumps and automatic valve operability
- b. Pump Once/month Operability
- c. Deleted
- d. Pump Once/3 year
   capability



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

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION SUPPORTING AMENDMENT NO. 125 TO FACILITY OPERATING LICENSE NO. DPR-33

AMENDMENT NO. 120 TO FACILITY OPERATING LICENSE NO. DPR-52

AMENDMENT NO. 96 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 JNTRODUCTION

By letter dated April 8, 1985 (TVA BFNP TS-208), 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 proposed amendments would (1) clarify requirements relating to main steam line flow instruments, (2) delete expired requirements added August 15, 1984 to provide emergency temporary relief of operability requirements for a containment air dilution valve, (3) clarify wording used to refer to various fire protection systems, (4) correct an error in a table describing whether scram discharge tank switches are analog or digital, and (5) update and correct the table of "Testable Penetrations with Double O-Ring Seals".

# 2.0 DISCUSSION AND EVALUATION

#### Main Steam Line Flow Instrumentation

The proposed change would revise a note in Technical Specifications Table 3.2.A to require that the high main steam line flow detection trip function contain at least one operable sensor per trip system in place of requiring simply any two sensors to be operable. This change is needed to ensure that FSAR (Section 7.3.3.7.a) single failure criteria are satisfied and is acceptable. High main steam line flow must actuate both trip systems to initiate main steam line isolation.

## Containment Air Dilution (Unit 1 only)

On August 15, 1984 the staff issued Amendment No. 109 to the Unit 1 Technical Specifications. This amendment added Sections 3.7.G.6, 3.7.G.7, and 4.7.G.2 which temporarily permitted Train A of the CAD system to be considered operable with valve FCV 84-8B inoperable. This provision was

stated to be effective until "the first cold shutdown of Unit 1 after July 20, 1984 or until January 17, 1985, whichever occurs first". These events have since occurred and the amendment is thus no longer effective. Deletion of 3.7.G.6, 3.7.G.7, and 4.7.G.2 will restore the CAD system Technical Specifications to their prior requirements. This change is therefore acceptable.

# Fire Protection Systems

The proposed change would revise the "Applicability" section of the Fire Protection Systems Technical Specifications to delete references to "high pressure water", "CO, ", and "fixed spray systems", and replace them with references to the "applicable fire suppression and/or detection system." The purpose this change is to preclude a possible misinterpretation that there is an automatic fire suppression system in the cable tunnel leading to the Intake Pumping Station, and fixed spray for all cable trays along the south wall of the Turbine Building on elevation 586. The existence of such systems may be inferred from the wording of the current Technical Specifications; however, the cable tunnel to the Intake Pumping Station has fire detectors only, and the Unit 3 cable tray penetrations into the Turbine Building, (which are less congested than those of Units 1 and 2) do not have fixed spray systems. This change provides clarifications necessary to make the Technical Specifications consistent with the installed fire protection system, and is acceptable based on consistency with the licensee's approved "Plan for Evaluation, Repair and Return to Service of Browns Ferry (March 22, 1975 fire)."

# SDJV Level Switches (Unit 1 only)

Amendment No. 92 approved modifications to the scram discharge instrument volume (SDJV) level switches. The revised Technical Specification pages submitted by the licensee and issued by the staff incorrectly indicate that the replacement switches are of a Group B (analog) design. The switches are actually Group A (digital) switches. The proposed amendment corrects the error and is therefore acceptable.

# Testable Penetrations with Double O-Ring Seals (Unit 1 only)

The requested amendments would revise Table 3.7.B "Testable Penetrations with Double O-Ring Seals". Fourteen penetrations would be added, reflecting modifications to flanges to make them testable. The modifications were required to enable the penetrations to be local leak rate tested as required by 10 CFR 50 Appendix J. The changes are therefore acceptable. The nomenclature for penetration X-35g would be changed from "TJP Drive" to "Spare". This is consistent with the as-constructed facility, as described in FSAR Fig. 7.5-23a, and is acceptable. Penetration X-213A would be deleted from the Table. The penetration, originally described as a "Construction Drain" in the original (June 1973) Technical Specifications, has been welded-up and no longer exists. This

change is therefore acceptable. Other minor changes in nomenclature for various penetrations have been requested. These changes are consistent with changes made by Amendment 78 for Unit 3 and are 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 and changes in test requirements. 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: W. Long

Dated: December 18, 1985