

June 30, 1994

Docket Nos. 50-259
and 50-296

Mr. Oliver D. Kingsley, Jr.
President, TVA Nuclear and
Chief Nuclear Officer
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Mr. Kingsley:

SUBJECT: ISSUANCE OF TECHNICAL SPECIFICATION AMENDMENTS FOR THE BROWNS FERRY
NUCLEAR PLANT UNITS 1 AND 3 (TAC NOS. M84042 AND M84043) (TS 314)

The Commission has issued the enclosed Amendment Nos. 209, and 182 to Facility Operating License Nos. DPR-33 and DPR-68 for the Browns Ferry Nuclear Plant (BFN), Units 1 and 3, respectively. These amendments are in response to your application dated July 2, 1992, requesting changes to the BFN Units 1 and 3 Technical Specifications. The amendments revise requirements associated with the Residual Heat Removal valve pressure switches.

The staff notes that TVA has not performed unit-specific setpoint calculations for BFN Units 1 and 3, and has used BFN Unit 2 calculations for setpoint values. TVA has committed to confirm these values in unit-specific calculations prior to restart of BFN Units 1 and 3. The staff requests that TVA inform the staff when these calculations are complete.

A copy of the NRC's Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:
Joseph F. Williams, Project Manager
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 209 to License No. DPR-33
2. Amendment No. 182 to License No. DPR-68
3. Safety Evaluation

cc w/enclosures:
See next page

OFC	PDII-4/LA	PDII-4/PM	PDII-4/PMDET	OGC	PDII-4/D
NAME	B. [Signature]	JWilliams	DTrimble	[Signature]	FHebdon
DATE	6/16/94	6/20/94	6/20/94	6/27/94	6/30/94

Technical Review RECOMMENDED REVISIONS INCORPORATED - 6/30/94

CP-1

DOCUMENT NAME: TS314.AMD

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DFD

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Tennessee Valley Authority

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AMENDMENT NO. 209 FOR BROWNS FERRY UNIT NO. 1 - DOCKET NO. 50-259 and
AMENDMENT NO. 182 FOR BROWNS FERRY UNIT NO. 3 - DOCKET NO. 50-296

DATE: June 30, 1994

DISTRIBUTION

Docket File

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ACRS(10)

OPA

OC/LFDCB T-9-E-10

C. Patterson RII

E. Merschoff RII

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. 209
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 July 2, 1992 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.

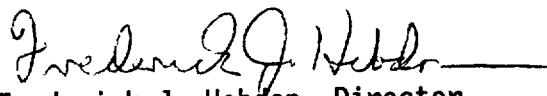
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-33 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 209, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 30, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 209

FACILITY OPERATING LICENSE NO. DPR-33

DOCKET NO. 50-259

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 are provided to maintain document completeness.

REMOVE

3.2/4.2-16
3.2/4.2-17
3.2/4.2-40
3.2/4.2-41
3.2/4.2-44
3.2/4.2-45
3.2/4.2-61
3.2/4.2-61a

INSERT

3.2/4.2-16
3.2/4.2-17*
3.2/4.2-40
3.2/4.2-41*
3.2/4.2-44*
3.2/4.2-45
3.2/4.2-61
3.2/4.2-61a*

TABLE 3.2.B (Continued)

Minimum No. Operable Per Trip Sys(1)	Function	Trip Level Setting	Action	Remarks
2	Instrument Channel - Reactor Low Pressure (PS-3-74 A & B, SW #2) (PS-68-95, SW #2) (PS-68-96, SW #2)	450 psig ± 15	A	1. Below trip setting permissive for opening CSS and LPCI admission valves.
2	Instrument Channel - Reactor Low Pressure (PS-3-74 A & B, SW #1) (PS-68-95, SW #1) (PS-68-96, SW #1)	230 psig ± 15	A	1. Recirculation discharge valve actuation.
2	Core Spray Auto Sequencing Timers (5)	6 ≤ t ≤ 8 sec.	B	1. With diesel power 2. One per motor
2	LPCI Auto Sequencing Timers (5)	0 ≤ t ≤ 1 sec.	B	1. With diesel power 2. One per motor
1	RHR SW A1, B3, C1, and D3 Timers	13 ≤ t ≤ 15 sec.	A	1. With diesel power 2. One per pump
2	Core Spray and LPCI Auto Sequencing Timers (6)	0 ≤ t ≤ 1 sec. 6 ≤ t ≤ 8 sec. 12 ≤ t ≤ 16 sec. 18 ≤ t ≤ 24 sec.	B	1. With normal power 2. One per CSS motor 3. Two per RHR motor
1	RHR SW A1, B3, C1, and D3 Timers	27 ≤ t ≤ 29 sec.	A	1. With normal power 2. One per pump

BFN
Unit 1

3.2/4.2-16

AMENDMENT NO. 209

TABLE 3.2.B (Continued)

Minimum No. Operable Per Trip Sys(1)	Function	Trip Level Setting	Action	Remarks
2	Instrument Channel - RHR Discharge Pressure	100 ±10 psig	A	1. Below trip setting defers ADS actuation.
2	Instrument Channel CSS Pump Discharge Pressure	185 ±10 psig	A	1. Below trip setting defers ADS actuation.
1(3)	Core Spray Sparger to Reactor Pressure Vessel d/p	2 psid ±0.4	A	1. Alarm to detect core spray sparger pipe break.
1	RHR (LPCI) Trip System bus power monitor	N/A	C	1. Monitors availability of power to logic systems.
1	Core Spray Trip System bus power monitor	N/A	C	1. Monitors availability of power to logic systems.
1	ADS Trip System bus power monitor	N/A	C	1. Monitors availability of power to logic systems and valves.

BFN
Unit 1

3.2/4.2-17

AMENDMENT NO. 205

BFN
Unit 1

TABLE 4.2.A
SURVEILLANCE REQUIREMENTS FOR PRIMARY CONTAINMENT AND REACTOR BUILDING ISOLATION INSTRUMENTATION

<u>Function</u>	<u>Functional Test</u>	<u>Calibration Frequency</u>	<u>Instrument Check</u>
Instrument Channel - Reactor Low Water Level (LIS-3-203A-D, SW 2-3)	(1)	(5)	once/day
Instrument Channel - Reactor High Pressure (PS-68-93 & -94)	(31)	once/18 months	None
Instrument Channel - Reactor Low Water Level (LIS-3-56A-D, SW #1)	(1)	once/3 month	once/day
Instrument Channel - High Drywell Pressure (PS-64-56A-D)	(1)	(5)	N/A
Instrument Channel - High Radiation Main Steam Line Tunnel	once/3 months (29)	(5)	once/day
Instrument Channel - Low Pressure Main Steam Line (PT-1-72, -76, -82, -86)	once/3 months (27) (29)	once/operating cycle (28)	None
Instrument Channel - High Flow Main Steam Line (dPT-1-13A-D, -25A-D, -36A-D, -50A-D)	once/3 months (27) (29)	once/operating cycle (28)	once/day

3.2/4.2-40

AMENDMENT NO. 209

TABLE 4.2.A (Cont'd)
 SURVEILLANCE REQUIREMENTS FOR PRIMARY CONTAINMENT AND REACTOR BUILDING ISOLATION INSTRUMENTATION

<u>Function</u>	<u>Functional Test</u>	<u>Calibration Frequency</u>	<u>Instrument Check</u>
Instrument Channel - Main Steam Line Tunnel High Temperature	once/3 months (27)	once/operating cycle	None
Instrument Channel - Reactor Building Ventilation High Radiation - Reactor Zone	(1) (30)	once/18 months	once/day (8)
Instrument Channel - Reactor Building Ventilation High Radiation - Refueling Zone	(1) (30)	once/18 Months	once/day (8)
Instrument Channel - SGTS Train A Heaters	(4)	(9)	N/A
Instrument Channel - SGTS Train B Heaters	(4)	(9)	N/A
Instrument Channel - SGTS Train C Heaters	(4)	(9)	N/A
Reactor Building Isolation Timer (refueling floor)	(4)	once/operating cycle	N/A
Reactor Building Isolation Timer (reactor zone)	(4)	once/operating cycle	N/A

BEN
Unit 1

3.2/4.2-41

AMENDMENT NO. 195

TABLE 4.2.B
SURVEILLANCE REQUIREMENTS FOR INSTRUMENTATION THAT INITIATE OR CONTROL THE CSCS

<u>Function</u>	<u>Functional Test</u>	<u>Calib</u>	<u>Instrument Check</u>
Instrument Channel - Reactor Low Water Level (LIS-3-58A-D)	(1)	once/3 months	once/day
Instrument Channel - Reactor Low Water Level (LIS-3-184 & 185)	(1)	once/3 months	once/day
Instrument Channel - Reactor Low Water Level (LITS-3-52 & 62)	(1)	once/3 months	once/day
Instrument Channel - Drywell High Pressure (PS-64-58E-H)	(1)	once/3 months	none
Instrument Channel - Drywell High Pressure (PS-64-58A-D)	(1)	once/3 months	none
Instrument Channel - Drywell High Pressure (PS-64-57A-D)	(1)	once/3 months	none
Instrument Channel - Reactor Low Pressure (PS-3-74A & B) (PS-68-95) (PS-68-96)	(1)	once/3 months	none

BEN
Unit 1

3.2/4.2-44

AMENDMENT NO. 164

TABLE 4.2.B (Continued)
SURVEILLANCE REQUIREMENTS FOR INSTRUMENTATION THAT INITIATE OR CONTROL THE CSCS

<u>Function</u>	<u>Functional Test</u>	<u>Calibration</u>	<u>Instrument Check</u>
Core Spray Auto Sequencing Timers (Normal Power)	(4)	once/operating cycle	none
Core Spray Auto Sequencing Timers (Diesel Power)	(4)	once/operating cycle	none
LPCI Auto Sequencing Timers (Normal Power)	(4)	once/operating cycle	none
LPCI Auto Sequencing Timers (Diesel Power)	(4)	once/operating cycle	none
RHRWS A1, B3, C1, D3 Timers (Normal Power)	(4)	once/operating cycle	none
RHRWS A1, B3, C1, D3 Timers (Diesel Power)	(4)	once/operating cycle	none
ADS Timer	(4)	once/operating cycle	none
ADS High Drywell Pressure Bypass Timer	(4)	once/operating cycle	none

BFN
Unit 1

3.2/4.2-45

AMENDMENT NO. 209

NOTES FOR TABLES 4.2.A THROUGH 4.2.L except 4.2.D AND 4.2.K (Cont'd)

26. This instrument check consists of comparing the background signal levels for all valves for consistency and for nominal expected values (not required during refueling outages).
27. Functional test consists of the injection of a simulated signal into the electronic trip circuitry in place of the sensor signal to verify OPERABILITY of the trip and alarm functions.
28. Calibration consists of the adjustment of the primary sensor and associated components so that they correspond within acceptable range and accuracy to known values of the parameter which the channel monitors, including adjustment of the electronic trip circuitry, so that its output relay changes state at or more conservatively than the analog equivalent of the trip level setting.
29. The functional test frequency decreased to once/3 months to reduce challenges to relief valves per NUREG-0737, Item II.K.3.16.
30. Functional testing for the Reactor Building Ventilation Radiation Monitoring System (RBVRMS) shall consist of verifying the High Voltage Power Supply (HVPS) voltage at the Sensor and Convertors (detectors) is within its design limits. A channel functional test as defined in Section 1.0, "Definitions" shall be performed once per 18 months as part of the RBVRM channel calibration.
31. Functional tests shall be performed once/3 months.

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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. 182
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 July 2, 1992 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.

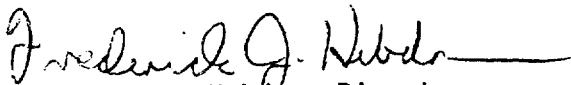
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-68 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 182, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 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/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 30, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 182

FACILITY OPERATING LICENSE NO. DPR-68

DOCKET NO. 50-296

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 are provided to maintain document completeness.

REMOVE

3.2/4.2-16
3.2/4.2-17
3.2/4.2-39
3.2/4.2-40
3.2/4.2-43
3.2/4.2-44
3.2/4.2-60
3.2/4.2-60a

INSERT

3.2/4.2-16
3.2/4.2-17*
3.2/4.2-39
3.2/4.2-40*
3.2/4.2-43*
3.2/4.2-44
3.2/4.2-60
3.2/4.2-60a*

TABLE 3.2.B (Continued)

Minimum No. Operable Per Trip Sys(1)	Function	Trip Level Setting	Action	Remarks
2	Instrument Channel - Reactor Low Pressure (PS-3-74 A & B, SW #2) (PS-68-95, SW #2) (PS-68-96, SW #2)	450 psig \pm 15	A	1. Below trip setting permissive for opening CSS and LPCI admission valves.
2	Instrument Channel - Reactor Low Pressure (PS-3-74 A & B, SW #1) (PS-68-95, SW #1) (PS-68-96, SW #1)	230 psig \pm 15	A	1. Recirculation discharge valve actuation.
2	Core Spray Auto Sequencing Timers (5)	$6 \leq t \leq 8$ sec.	B	1. With diesel power 2. One per motor
2	LPCI Auto Sequencing Timers (5)	$0 \leq t \leq 1$ sec.	B	1. With diesel power 2. One per motor
1	RHRSW A3, B1, C3, and D1 Timers	$13 \leq t \leq 15$ sec.	A	1. With diesel power 2. One per pump
2	Core Spray and LPCI Auto Sequencing Timers (6)	$0 \leq t \leq 1$ sec. $6 \leq t \leq 8$ sec. $12 \leq t \leq 16$ sec. $18 \leq t \leq 24$ sec.	B	1. With normal power 2. One per CSS motor 3. Two per RHR motor
1	RHRSW A3, B1, C3, and D1 Timers	$27 \leq t \leq 29$ sec.	A	1. With normal power 2. One per pump

BFN
Unit 3

3.2/4.2-16

AMENDMENT NO. 182

TABLE 3.2.B (Continued)

Minimum No.
Operable Per
Trip Sys(1)

	Function	Trip Level Setting	Action	Remarks
2	Instrument Channel - RHR Discharge Pressure	100 ±10 psig	A	1. Below trip setting defers ADS actuation.
2	Instrument Channel CSS Pump Discharge Pressure	185 ±10 psig	A	1. Below trip setting defers ADS actuation.
1(3)	Core Spray Sparger to Reactor Pressure Vessel d/p	2 psid ±0.4	A	1. Alarm to detect core spray sparger pipe break.
1	RHR (LPCI) Trip System bus power monitor	N/A	C	1. Monitors availability of power to logic systems.
1	Core Spray Trip System bus power monitor	N/A	C	1. Monitors availability of power to logic systems.
1	ADS Trip System bus power monitor	N/A	C	1. Monitors availability of power to logic systems and valves.

BFN
Unit 3

3.2/4.2-17

AMENDMENT NO. 178

TABLE 4.2.A
SURVEILLANCE REQUIREMENTS FOR PRIMARY CONTAINMENT AND REACTOR BUILDING ISOLATION INSTRUMENTATION

<u>Function</u>	<u>Functional Test</u>	<u>Calibration Frequency</u>	<u>Instrument Check</u>
Instrument Channel - Reactor Low Water Level (LIS-3-203A-D, SW 2-3)	(1)	(5)	once/day
Instrument Channel - Reactor High Pressure (PS-68-93 & -94)	(31)	once/18 months	None
Instrument Channel - Reactor Low Water Level (LIS-3-56A-D, SW #1)	(1)	once/3 month	once/day
Instrument Channel - High Drywell Pressure (PS-64-56A-D)	(1)	(5)	N/A
Instrument Channel - High Radiation Main Steam Line Tunnel	once/3 months (27)	(5)	once/day
Instrument Channel - Low Pressure Main Steam Line	once/3 months (27)	once/3 months	None
Instrument Channel - High Flow Main Steam Line	once/3 months (27)	once/3 months	once/day

BFN
Unit 3

3.2/4.2-39

AMENDMENT NO. 182

BEN
Unit 3

3.2/4.2-40

AMENDMENT NO. 167

TABLE 4.2.A
SURVEILLANCE REQUIREMENTS FOR PRIMARY CONTAINMENT AND REACTOR BUILDING ISOLATION INSTRUMENTATION

<u>Function</u>	<u>Functional Test</u>	<u>Calibration Frequency</u>	<u>Instrument Check</u>
Instrument Channel - Main Steam Line Tunnel High Temperature	once/3 months (27)	once/operating cycle	None
Instrument Channel - Reactor Building Ventilation High Radiation - Reactor Zone	(1) (30)	once/18 months	once/day (8)
Instrument Channel - Reactor Building Ventilation High Radiation - Refueling Zone	(1) (30)	once/18 Months	once/day (8)
Instrument Channel - SGTS Train A Heaters	(4)	(9)	N/A
Instrument Channel - SGTS Train B Heaters	(4)	(9)	N/A
Instrument Channel - SGTS Train C Heaters	(4)	(9)	N/A
Reactor Building Isolation Timer (refueling floor)	(4)	once/operating cycle	N/A
Reactor Building Isolation Timer (reactor zone)	(4)	once/operating cycle	N/A

TABLE 4.2.B
SURVEILLANCE REQUIREMENTS FOR INSTRUMENTATION THAT INITIATE OR CONTROL THE CSCS

<u>Function</u>	<u>Functional Test</u>	<u>Calibration</u>	<u>Instrument Check</u>
Instrument Channel - Reactor Low Water Level (LIS-3-58A-D)	(1)	once/3 months	once/day
Instrument Channel - Reactor Low Water Level (LIS-3-184 & 185)	(1)	once/3 months	once/day
Instrument Channel - Reactor Low Water Level (LITS-3-52 & 62)	(1)	once/3 months	once/day
Instrument Channel - Drywell High Pressure (PS-64-58E-H)	(1)	once/3 months	none
Instrument Channel - Drywell High Pressure (PS-64-58A-D)	(1)	once/3 months	none
Instrument Channel - Drywell High Pressure (PS-64-57A-D)	(1)	once/3 months	none
Instrument Channel - Reactor Low Pressure (PS-3-74A & B) (PS-68-95) (PS-68-96)	(1)	once/3 months	none

BEN
Unit 3

3.2/4.2-43

AMENDMENT NO. 135

TABLE 4.2.B (Cont'd)
 SURVEILLANCE REQUIREMENTS FOR INSTRUMENTATION THAT INITIATE OR CONTROL THE CSCS

<u>Function</u>	<u>Functional Test</u>	<u>Calibration</u>	<u>Instrument Check</u>
Core Spray Auto Sequencing Timers (Normal Power)	(4)	once/operating cycle	none
Core Spray Auto Sequencing Timers (Diesel Power)	(4)	once/operating cycle	none
LPCI Auto Sequencing Timers (Normal Power)	(4)	once/operating cycle	none
LPCI Auto Sequencing Timers (Diesel Power)	(4)	once/operating cycle	none
RHRWS A3, B1, C3, D1 Timers (Normal Power)	(4)	once/operating cycle	none
RHRWS A3, B1, C3, D1 Timers (Diesel Power)	(4)	once/operating cycle	none
ADS Timer	(4)	once/operating cycle	none
ADS High Drywell Pressure Bypass Timer	(4)	once/operating cycle	none

BFN
 Unit 3

3.2/4.2-44

AMENDMENT NO. 182

NOTES FOR TABLES 4.2.A THROUGH 4.2.L except 4.2.D AND 4.2.K (Cont'd)

26. This instrument check consists of comparing the background signal levels for all valves for consistency and for nominal expected values (not required during refueling outages).
27. Functional test frequency decreased to once/3 months to reduce the challenges to relief valves per NUREG-0737, Item II.K.3.16.
28. Functional test consists of the injection of a simulated signal into the electronic trip circuitry in place of the sensor signal to verify OPERABILITY of the trip and alarm functions.
29. Calibration consists of the adjustment of the primary sensor and associated components so that they correspond within acceptable range and accuracy to known values of the parameter which the channel monitors, including adjustment of the electronic trip circuitry, so its output relay changes state at or more conservatively than the analog equivalent of the trip level setting.
30. Functional testing for the Reactor Building Ventilation Radiation Monitoring System (RBVRMS) shall consist of verifying the High Voltage Power Supply (HVPS) voltage at the Sensor and Convertors (detectors) is within its design limits. A channel functional test as defined in Section 1.0, "Definitions" shall be performed once per 18 months as part of the RBVRM channel calibration.
31. Functional tests shall be performed once/3 months.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 209 TO FACILITY OPERATING LICENSE NO. DPR-33
AMENDMENT NO. 182 TO FACILITY OPERATING LICENSE NO. DPR-68
TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT, UNITS 1 AND 3
DOCKET NOS. 50-259 AND 50-296

1.0 INTRODUCTION

By letter dated July 2, 1992, the Tennessee Valley Authority (the licensee) requested changes to the Technical Specifications (TS) for the Browns Ferry Nuclear Plant (BFN) Units 1 and 3. The proposed changes revise the TS related to the Residual Heat Removal (RHR) valve pressure switches. The licensee is replacing the present non-class IE pressure switches with class IE pressure switches. These switches are used in the RHR system to prevent an intersystem LOCA. The staff had approved similar changes for BFN Unit 2 on December 10, 1990.

The existing pressure switches (instruments PS-68-93 and PS-68-94) have two sets of contacts with a range of 50 - 1200 pounds per square inch, gage (psig), with a setpoint of 100 ± 15 psig. The wide range of the existing switches has caused excessive drift, which results in unacceptable instrument accuracy. The new switches have a range of 20 - 180 psig. Since class IE pressure switches could be purchased with only one set of contacts, the licensee has deleted a redundant permissive signal generated by one set of contacts.

2.0 EVALUATION

By letters dated May 24, 1990 and September 17, 1990, the licensee had requested changes to the BFN Unit 2 TS regarding the RHR valve pressure switches. These changes were accepted by the staff on December 10, 1990. The staff finds that the licensee's submittal of July 2, 1992 for the BFN Units 1 and 3 RHR valve pressure switches is bounded by the evaluation previously performed for BFN Unit 2. Details of this conclusion are discussed below.

The licensee has proposed to make the following changes to the TS for BFN Units 1 and 3:

- a. Tables 3.2.B and 4.2.B were revised to delete the function "Instrument Channel - Reactor Low Pressure (PS-68-93 & 94, SW #1)."

The staff's December 10, 1990 safety evaluation for BFN Unit 2 accepted this change based on the fact that this function is redundant to other functions, and can be deleted without a decrease in safety. The

proposed changes for BFN Units 1 and 3 are acceptable for the same reasons.

- b. Table 4.2.A was revised to add pressure switch numbers PS-68-93 and PS-68-94.

This change adds the new pressure switches to the appropriate Technical Specifications and are acceptable.

- c. Table 4.2.A was revised to change the functional test note to (31) for BFN Unit 1, and to (30) for BFN Unit 3, from the present note (1). The Notes for Table 4.2.A were revised to add notes 31 and 30 for BFN Unit 1 and BFN Unit 3, respectively. These notes state that "Functional tests shall be performed once every 3 months." This revision changes the functional test frequency from monthly to once every three months.

The staff's December 10, 1990 safety evaluation for BFN Unit 2 accepted this extension to the functional test frequency based on the fact that the new pressure switches have improved reliability and accuracy. Therefore, the functional test frequency can be extended without decreasing the safety function of the instruments. The proposed changes for BFN Units 1 and 3 are acceptable for the same reasons.

- d. Table 4.2.A was revised to change the calibration frequency to once every 18 months from once every three months.

The staff's December 10, 1990 safety evaluation for BFN Unit 2 accepted this extension to the calibration frequency based on the fact that the new pressure switches have improved reliability and accuracy. Therefore, the calibration frequency can be extended without decreasing the safety function of the instruments. The proposed changes for BFN Units 1 and 3 are acceptable for the same reasons.

The staff notes that the licensee has not performed a unit-specific setpoint calculation for BFN Units 1 and 3, and has used BFN Unit 2 calculations for setpoint values. The licensee has committed to confirm these values by unit-specific calculations prior to restart of BFN Units 1 and 3. The staff accepts this commitment.

3.0 SUMMARY

The staff concludes that the present switch contact #1 testing requirement may be eliminated, and all references to that testing may be removed from the TSs. The staff finds that the new class IE pressure switches are properly described and controlled by the revised TS. The staff also finds that the increase in functional test frequency from once a month to once every three months, and the increase in calibration test frequency from once every three months to once every 18 months is 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 requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20, and changes Surveillance 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 48826). 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.

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.

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Dated: June 30, 1994