

Docket No. 50-259/260/296

Mr. S. A. White  
Manager of Nuclear Power  
Tennessee Valley Authority  
6N 38A Lookout Place  
1101 Market Street  
Chattanooga, Tennessee 37402-2801

Distribution

Docket File	Projects Rdg.	FMiraglia
NRC PDR	BDLiaw	JRutberg
Local PDR	WJones	KBarr, RII
SEbnetter	OGC-Rockville	DHagan
JAxelrad	JPartlow	ACRS(10)
SRichardson	EJordan	BFN File
GZech	TBarnhart(12)	TVA-Rockville
GGears	GPA/PA	
JKelly(2)	LFMB	
CJamerson(2)	EButcher	
Aignatonis, RII		

Dear Mr. White:

SUBJECT: TECHNICAL SPECIFICATION CHANGE TO TABLES 3.2.B AND 4.2.K  
(TAC 00267, 00268, 00269) (TS 237)

Re: Browns Ferry Nuclear Plant, Units 1, 2, and 3

The Commission has issued the enclosed Amendments Nos. , , and to Facility Operating Licenses Nos. DPR-33, DPR-52 and DPR-68 for the Browns Ferry Nuclear Plant, Units 1, 2 and 3, respectively. These amendments are in response to your application dated January 14, 1988. The amendments modify Technical Specification Tables 3.2.B and 4.2.K to correct identified inconsistencies.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

Rajender Auluck, Acting Assistant  
Director for Projects  
TVA Projects Division  
Office of Special Projects

Enclosures:

1. Amendment No. <sup>143</sup> to License No. DPR-33
2. Amendment No. <sup>144</sup> to License No. DPR-52
3. Amendment No. <sup>145</sup> to License No. DPR-68
4. Safety Evaluation

cc w/enclosures:

See next page

\*SEE PREVIOUS PAGE FOR CONCURRENCE

OSP:TVA/LA*	OSP:TVA/PM*	OSP:TVA/PM*	TVA:AD/TP*
CJamerson	GGears	JKelly	BDLiaw
4/12/88	4/13/88	4/12/88	4/20/88

*[Signature]*  
OGC-Rockville  
*R. Bachmann*  
4/25/88

~~TVA:AD/P~~  
RAutuck  
4/1/88

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PDR ADDCK 05000259  
P PDR

Docket No. 50-259/260/296

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Sincerely,

Gary G. Zech, Assistant Director  
 for Projects  
 TVA Projects Division  
 Office of Special Projects

Enclosures:

1. Amendment No. to License No. DPR-33
2. Amendment No. to License No. DPR-52
3. Amendment No. to License No. DPR-68
4. Safety Evaluation

cc w/enclosures:  
 See next page

OSP:TVA/LA  
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 4/12/88

OSP:TVA/PM  
 GGears  
 4/13/88

OSP:PM  
 JKelly  
 4/12/88

OGC-Rockville  
 4/ /88

~~TVA:AD/P  
 GGZech  
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Docket No. 50-259/260/296

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Mr. S. A. White  
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Tennessee Valley Authority  
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Gary G. Zech, Assistant Director  
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Enclosures:

1. Amendment No. to License No. DPR-33
2. Amendment No. to License No. DPR-52
3. Amendment No. to License No. DPR-68
4. Safety Evaluation

cc w/enclosures:

See next page

\*SEE PREVIOUS PAGE FOR CONCURRENCE

OSP:TVA/LA\*

OSP:TVA/PM\*

OSP:TVA/PM\*

TVA:AD/TP

OGC-Rockville

CJamerson

GGears

JKelly

BDLiaw

4/ /88

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4/20/88

4/ /88

TVA:A/AD/P

RAWluck

4/ /88

Mr. S. A. White  
Tennessee Valley Authority

Browns Ferry Nuclear Plant  
Units 1, 2, and 3

cc:

General Counsel  
Tennessee Valley Authority  
400 West Summit Hill Drive  
E11 B33  
Knoxville, Tennessee 37902

Regional Administrator, Region II  
U.S. Nuclear Regulatory Commission  
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Atlanta, Georgia 30323

Mr. R. L. Gridley  
Tennessee Valley Authority  
5N 157B Lookout Place  
Chattanooga, Tennessee 37402-2801

Resident Inspector/Browns Ferry NP  
U.S. Nuclear Regulatory Commission  
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Athens, Alabama 35611

Mr. H. P. Pomrehn  
Tennessee Valley Authority  
Browns Ferry Nuclear Plant  
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Decatur, Alabama 35602

Mr. Richard King  
c/o U.S. GAO  
1111 North Shore Drive  
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Knoxville, Tennessee 37919

Mr. M. J. May  
Tennessee Valley Authority  
Browns Ferry Nuclear Plant  
P.O. Box 2000  
Decatur, Alabama 35602

Dr. Henry Myers, Science Advisor  
Committee on Interior  
and Insular Affairs  
U.S. House of Representatives  
Washington, D.C. 20515

Mr. D. L. Williams  
Tennessee Valley Authority  
400 West Summit Hill Drive  
W10 B85  
Knoxville, Tennessee 37902

Chairman, Limestone County Commission  
P.O. Box 188  
Athens, Alabama 35611

Claude Earl Fox, M.D.  
State Health Officer  
State Department of Public Health  
State Office Building  
Montgomery, Alabama 36130



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. 148  
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 January 14, 1988, 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.

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PDR ADOCK 05000259  
P PDR

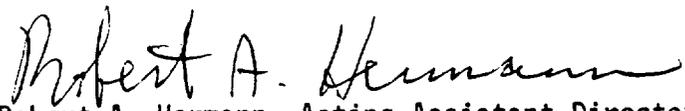
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-33 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 148, 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 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Robert A. Hermann, Acting Assistant Director  
for Projects  
TVA Projects Division  
Office of Special Projects

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 4, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 148

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

3.2/4.2-14

3.2/4.2-15

3.2/4.2-62

INSERT

3.2/4.2-14

3.2/4.2-15\*

3.2/4.2-62

BFN  
Unit 1

TABLE 3.2.B  
INSTRUMENTATION THAT INITIATES OR CONTROLS THE CORE AND CONTAINMENT COOLING SYSTEMS

Minimum No. Operable per Trip Sys(1)	Function	Trip Level Setting	Action	Remarks
2	Instrument Channel - Reactor Low Water Level	≥ 470" above vessel zero.	A	1. Below trip setting initiated HPCI.
2	Instrument Channel - Reactor Low Water Level	≥ 470" above vessel zero.	A	1. Multiplier relays initiate RCIC.
2	Instrument Channel - Reactor Low Water Level (LIS-3-58A-D, SW #1)	≥ 378" above vessel zero.	A	1. Below trip setting initiates CSS.  Multiplier relays initiate LPCI.
2(16)	Instrument Channel - Reactor Low Water Level (LIS-3-58A-D, SW #2)	≥ 378" above vessel zero.	A	2. Multiplier relay from CSS initiates accident signal (15).  1. Below trip settings, in conjunction with drywell high pressure, low water level permissive, 120 sec. delay timer and CSS or RHR pump running, initiates ADS.
1(16)	Instrument Channel - Reactor Low Water Level Permissive (LIS-3-184 & 185, SW #1)	≥ 544" above vessel zero.	A	1. Below trip setting permissive for initiating signals on ADS.
1	Instrument Channel - Reactor Low Water Level (LIS-3-52 and 62, SW #1)	> 312 5/16" above vessel zero. A (2/3 core height)	A	1. Below trip setting prevents inadvertent operation of containment spray during accident condition.

BFN-Unit 1

3.2/4.2-14

Amendment No. 148

TABLE 3.2.B (Continued)

Minimum No. Operable Per Trip Sys(1)	Function	Trip Level Setting	Action	Remarks
2	Instrument Channel - Drywell High Pressure (PS-64-58 E-H)	$l \leq p \leq 2.5$ psig	A	1. Below trip setting prevents inadvertent operation of containment spray during accident conditions.
2	Instrument Channel - Drywell High Pressure (PS-64-58 A-D, SW #2)	$\leq 2.5$ psig	A	1. Above trip setting in conjunction with low reactor pressure initiates CSS. Multiplier relays initiate HPCI. 2. Multiplier relay from CSS initiates accident signal. (15)
2	Instrument Channel - Reactor Low Water Level (LS-3-56A, B, C, D)	$\geq 470$ " above vessel zero	A	1. Below trip setting trips recirculation pumps.
2	Instrument Channel - Reactor High Pressure (PS-3-204 A, B, C, D)	$\leq 1120$ psig	A	1. Above trip setting trips recirculation pumps.
2	Instrument Channel - Drywell High Pressure (PS-64-58A-D, SW #1)	$\leq 2.5$ psig	A	1. Above trip setting in conjunction with low reactor pressure initiates LPCI.
2(16)	Instrument Channel - Drywell High Pressure (PS-64-57A-D)	$\leq 2.5$ psig	A	1. Above trip setting, in conjunction with low reactor water level, drywell high pressure, 120 sec. delay timer and CSS or RHR pump running, initiates ADS.

TABLE 4.2.K

Radioactive Gaseous Effluent Instrumentation Surveillance

<u>Instrument</u>	<u>Instrument Check</u>	<u>Source Check</u>	<u>Channel Calibration</u>	<u>Functional Test</u>
1. STACK				
a. Noble Gas Monitor (5)	D	M	R(1)	Q(2)
b. Iodine Cartridge	W	NA	NA	NA
c. Particulate Filter	W	NA	NA	NA
d. Sampler Flow Abnormal	D	NA	R	Q
e. Stack Flowmeter	D	NA	R	Q
2. REACTOR/TURBINE BLDG VENT				
a. Noble Gas Monitor (6)	D	M	R(1)	Q(2)
b. Iodine Sampler	W	NA	NA	NA
c. Particulate Sampler	W	NA	NA	NA
d. Sampler Flowmeter	D	NA	R	Q
3. TURBINE BLDG EXHAUST				
a. Noble Gas Monitor (6)	D	M	R(1)	Q(2)
b. Iodine Sampler	W	NA	NA	NA
c. Particulate Sampler	W	NA	NA	NA
d. Sampler Flowmeter	D	NA	R	Q
4. RADWASTE BLDG VENT				
a. Noble Gas Monitor (6)	D	M	R(1)	Q(2)
b. Iodine Sampler	W	NA	NA	NA
c. Particulate Sampler	W	NA	NA	NA
d. Sampler Flowmeter	D	NA	R	Q
5. OFF GAS HYDROGEN ANALYZER (H <sub>2</sub> A, H <sub>2</sub> B)	D	NA	R(3)	Q
6. OFF GAS POST TREATMENT (5)				
a. Noble Gas Activity Monitor	D	M	R(1)	Q(4)
b. Sample Flow Abnormal	D	NA	R	Q(2)

BFN-Unit 1

3.2/4.2-62

Amendment No. 132, 148



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.144  
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 January 14, 1988, 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. 144, 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 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Hermann, Acting Assistant Director  
for Projects  
TVA Projects Division  
Office of Special Projects

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 4, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 144

FACILITY OPERATING LICENSE NO. DPR-52

DOCKET NO. 50-260

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

REMOVE

3.2/4.2-14

3.2/4.2-15

3.2/4.2-62

INSERT

3.2/4.2-14

3.2/4.2-15\*

3.2/4.2-62

TABLE 3.2.B  
INSTRUMENTATION THAT INITIATES OR CONTROLS THE CORE AND CONTAINMENT COOLING SYSTEMS

Minimum No. Operable Per Trip Sys(1)	Function	Trip Level Setting	Action	Remarks
2	Instrument Channel - Reactor Low Water Level (LIS-3-58A-D)	≥ 470" above vessel zero.	A	1. Below trip setting initiated HPCI.
2	Instrument Channel - Reactor Low Water Level (LIS-3-58A-D)	≥ 470" above vessel zero.	A	1. Multiplier relays initiate RCIC.
2	Instrument Channel - Reactor Low Water Level (LIS-3-58A-D)	≥ 378" above vessel zero.	A	1. Below trip setting initiates CSS.  Multiplier relays initiate LPCI.
2(16)	Instrument Channel - Reactor Low Water Level (LIS-3-58A-D)	≥ 378" above vessel zero.	A	2. Multiplier relay from CSS initiates accident signal (15).  1. Below trip settings, in conjunction with drywell high pressure, low water level permissive, 120 sec. delay timer and CSS or RHR pump running, initiates ADS.
1(16)	Instrument Channel - Reactor Low Water Level Permissive (LIS-3-184, 185)	≥ 544" above vessel zero.	A	1. Below trip setting permissive for initiating signals on ADS.
1	Instrument Channel - Reactor Low Water Level (LIS-3-52 and 62)	> 312 5/16" above vessel zero. A (2/3 core height)	A	1. Below trip setting prevents inadvertent operation of containment spray during accident condition.

BFN  
Unit 2

3.2/4.2-14

Amendment No. 144

BFN-Unit 2

BFN  
Unit 2

TABLE 3.2.B (Continued)

Minimum No. Operable Per Trip Sys(1)	Function	Trip Level Setting	Action	Remarks
2	Instrument Channel - Drywell High Pressure (PIS-64-58 E-H)	$1 \leq p \leq 2.5$ psig	A	1. Below trip setting prevents inadvertent operation of containment spray during accident conditions.
2	Instrument Channel - Drywell High Pressure (PS-64-58 A-D)	$\leq 2.5$ psig	A	1. Above trip setting in conjunction with low reactor pressure initiates CSS. Multiplier relays initiate HPCI. 2. Multiplier relay from CSS initiates accident signal. (15)
2	Instrument Channel - Reactor Low Water Level (LIS-3-56A-D)	$\geq 470$ " above vessel zero	A	1. Below trip setting trips recirculation pumps.
2	Instrument Channel - Reactor High Pressure (PIS-3-204A-D)	$\leq 1120$ psig	A	1. Above trip setting trips recirculation pumps.
2	Instrument Channel - Drywell High Pressure (PIS-64-58A-D)	$\leq 2.5$ psig	A	1. Above trip setting in conjunction with low reactor pressure initiates LPCI.
2(16)	Instrument Channel - Drywell High Pressure (PIS-64-57A-D)	$\leq 2.5$ psig	A	1. Above trip setting, in conjunction with low reactor water level, drywell high pressure, 120 sec. delay timer and CSS or RHR pump running, initiates ADS.

3.2/4.2-15

BFN-Unit 2

TABLE 4.2.K

Radioactive Gaseous Effluent Instrumentation Surveillance

<u>Instrument</u>	<u>Instrument Check</u>	<u>Source Check</u>	<u>Channel Calibration</u>	<u>Functional Test</u>
1. STACK				
a. Noble Gas Monitor (5)	D	M	R(1)	Q(2)
b. Iodine Cartridge	W	NA	NA	NA
c. Particulate Filter	W	NA	NA	NA
d. Sampler Flow Abnormal	D	NA	R	Q
e. Stack Flowmeter	D	NA	R	Q
2. REACTOR/TURBINE BLDG VENT				
a. Noble Gas Monitor (6)	D	M	R(1)	Q(2)
b. Iodine Sampler	W	NA	NA	NA
c. Particulate Sampler	W	NA	NA	NA
d. Sampler Flowmeter	D	NA	R	Q
3. TURBINE BLDG EXHAUST				
a. Noble Gas Monitor (6)	D	M	R(1)	Q(2)
b. Iodine Sampler	W	NA	NA	NA
c. Particulate Sampler	W	NA	NA	NA
d. Sampler Flowmeter	D	NA	R	Q
4. RADWASTE BLDG VENT				
a. Noble Gas Monitor (6)	D	M	R(1)	Q(2)
b. Iodine Sampler	W	NA	NA	NA
c. Particulate Sampler	W	NA	NA	NA
d. Sampler Flowmeter	D	NA	R	Q
5. OFF GAS HYDROGEN ANALYZER (H <sub>2</sub> A, H <sub>2</sub> B)	D	NA	R(3)	Q
6. OFF GAS POST TREATMENT (5)				
a. Noble Gas Activity Monitor	D	M	R(1)	Q(4)
b. Sample Flow Abnormal	D	NA	R	Q(2)

BFN-Unit 2

3.2/4.2-62

Amendment No. 128, 144



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. 119  
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 January 14, 1988 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.119 , 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 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Hermann, Acting Assistant Director  
for Projects  
TVA Projects Division  
Office of Special Projects

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 4, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 119

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.

REMOVE

3.2/4.2-61

INSERT

3.2/4.2-61

TABLE 4.2.K  
Radioactive Gaseous Effluent Monitoring Instrumentation

<u>Instrument</u>	<u>Instrument Check</u>	<u>Source Check</u>	<u>Calibration</u>	<u>Test</u>
1. STACK				
a. Noble Gas Monitor (5)	D	M	R(1)	Q(2)
b. Iodine Cartridge	W	NA	NA	NA
c. Particulate Filter	W	NA	NA	NA
d. Sampler Flow Abnormal	D	NA	R	Q
e. Stack Flowmeter	D	NA	R	Q
2. REACTOR/TURBINE BLDG VENT				
a. Noble Gas Monitor (6)	D	M	R(1)	Q(2)
b. Iodine Sampler	W	NA	NA	NA
c. Particulate Sampler	W	NA	NA	NA
d. Stack Flowmeter	D	NA	R	Q
3. TURBINE BLDG EXHAUST				
a. Noble Gas Monitor (6)	D	M	R(1)	Q(2)
b. Iodine Sampler	W	NA	NA	NA
c. Particulate Sampler	W	NA	NA	NA
d. Stack Flowmeter	D	NA	R	Q
4. RADWASTE BLDG VENT				
a. Noble Gas Monitor (6)	D	M	R(1)	Q(2)
b. Iodine Sampler	W	NA	NA	NA
c. Particulate Sampler	W	NA	NA	NA
d. Stack Flowmeter	D	NA	R	Q
5. OFF GAS HYDROGEN ANALYZER (H <sub>2</sub> A, H <sub>2</sub> B)	D	NA	R(3)	Q
6. OFF GAS POST TREATMENT (5)				
a. Noble Gas Activity Monitor	D	M	R(1)	Q(4)
b. Sample Flow Abnormal	D	NA	R	Q(2)

BFN-Unit 3

BFN  
Unit 3

3.2/4.2-61

Amendment No. 103, 119



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

SAFETY EVALUATION BY THE OFFICE OF SPECIAL PROJECTS

SUPPORTING AMENDMENT NO. 148 TO FACILITY OPERATING LICENSE NO. DPR-33

AMENDMENT NO. 144 TO FACILITY OPERATING LICENSE NO. DPR-52

AMENDMENT NO. 119 TO FACILITY OPERATING LICENSE NO. DPR-68

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2 AND 3

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

1.0 INTRODUCTION

By letter dated January 14, 1988 (TS 237), the Tennessee Valley Authority (TVA or the licensee) requested amendments to Facility Operating Licenses Nos. DPR-33, DPR-52, and DPR-68 for the Browns Ferry Nuclear Plant (BFN), Units 1, 2 and 3. The proposed amendments involve two similar changes, both of which are corrections to references to footnotes applicable to instrumentation tables.

The first change is applicable to BFN Units 1 and 2 only. It is to correct a footnote referenced in Table 3.2.B, Instrumentation that Initiates or Controls the Core and Containment Cooling Systems. The table entry (page 3.2/4.2-14) for reactor low water level, which in conjunction with other signals will initiate the automatic depressurization system (ADS), is changed to reference note 16 instead of 14.

The second change applies to all three BFN units. It will delete the reference to footnote 4 in Table 4.2.K, Radioactive Gaseous Effluent Instrumentation Surveillance, for entry number 5 (offgas hydrogen analyzer). This change affects pages 3.2/4.2-62 for units 1 and 2, and page 3.2/4.2-61 for Unit 3.

2.0 EVALUATION

In the current Technical Specification (TS) Table 3.2.B, Instrumentation that Initiates or Controls the Core and Containment Cooling Systems, for BFN Units 1 and 2, the footnote on the Minimum No. Operable per Trip System column for the Instrument Channel - Reactor Low Water Level trip switch which initiates ADS, is footnote number 14. This is an incorrect footnote. Footnote 14 states "RHRSW pump would be inoperable." There is no correlation between the reactor low water level switch which initiates ADS and the RHRSW system. The correct footnote is footnote 16 which states, "The ADS circuitry is capable of

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accomplishing its protective action with one operable trip system. Therefore one trip system may be taken out of service for functional testing and calibration for a period not to exceed eight hours."

Footnote 16 is necessary in the Minimum No. Operable per Trip System column for this and several other instrumentation switches to provide the licensee the ability to take the instrumentation out of service (inoperable) to perform functional testing and calibration while establishing a time limit for this condition to exist. Footnote 16 is already referenced for other ADS instrumentation in this table and is currently referenced in BFN Unit 3 TS for this particular instrument channel. Footnote 16 is the appropriate footnote for this application and is therefore acceptable.

In the current Technical Specification (TS) Table 4.2.K, Radioactive Gaseous Effluent Instrumentation Surveillance, for BFN TS Units 1, 2 and 3, the note on the Functional Test column for Instrument No. 5, Offgas Hydrogen Analyzer, is note number 4. This is an incorrect note. Note 4 states that the functional test performed on this instrument will demonstrate that automatic isolation of the offgas line will occur when this instrument channel trips. This instrument channel was not designed to produce an isolation signal. However, any hydrogen analyzer abnormality will be annunciated in the Main Control Room.

The Final Safety Analysis Report does not take credit for or mention an isolation signal coming from the hydrogen analyzers on the offgas system. It only refers to a control room annunciation which does exist for high hydrogen concentrations. Also, NUREG-0483, Revision 3, "Standard Radiological Effluent Technical Specifications for Boiling Water Reactors," which provides model TS for this table, does not require such an isolation signal. Furthermore, it would not be an appropriate action to isolate the offgas system on an increasing hydrogen concentration for two reasons. First, hydrogen is not toxic or radioactive and therefore would not pose any threat to the public if released. Second, isolating the offgas system with an increasing hydrogen concentration could produce an explosive atmosphere in the condenser or offgas system, while continuing to operate the system would dilute and disperse the hydrogen, thereby reducing the possibility of explosion. Note 4 is not appropriate for the application and the staff, therefore, finds the proposed change acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

The amendments involve a change to a requirement with respect to 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 these 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 nor environmental assessment need be prepared in connection with the issuance of these amendments.

#### 4.0 CONCLUSION

The staff 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendments will not be inimical to the common defense and security nor to the health and safety of the public.

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Dated: May 4, 1988