

April 22, 1993

Docket Nos. 50-260  
and 50-296

Dr. Mark O. Medford, Vice President  
Nuclear Assurance, Licensing & Fuels  
Tennessee Valley Authority  
3B Lookout Place  
1101 Market Street  
Chattanooga, Tennessee 37402-2801

Dear Dr. Medford:

SUBJECT: ISSUANCE OF AMENDMENTS REGARDING INSTRUMENTATION RANGES AND LABELING  
BROWNS FERRY NUCLEAR PLANT, UNITS 2 AND 3 (TS-327) - (TAC NOS.  
M84396 AND M84397)

The Commission has issued the enclosed Amendment Nos. 211 and 168 to Facility  
Operating Licenses Nos. DPR-52 and DPR-68 for the Browns Ferry Nuclear Plant,  
Units 2 and 3, respectively. These amendments are in response to your  
application dated August 25, 1992, as supplemented on December 23, 1992,  
requesting revision of indication ranges for drywell pressure indicators and  
recorders, and other administrative changes regarding labeling of certain  
instrumentation.

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

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

Enclosures:

1. Amendment No. 211 to  
License No. DPR-52
2. Amendment No. 168 to  
License No. DPR-68
3. Safety Evaluation

RECEIVED APR 23 1993

cc w/enclosures:  
See next page

LA:PDII-4	PM:PDII-4	PM:PDII-4	OGE:AB	D:PDII-4
MSanders	TRoss:as	JWilliams	R Bachmann	FHebdon
3/31/93	4/9/93	3/31/93	4/16/93	4/24/93

DOCUMENT NAME: TS327.AMD

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PDR ADOCK 05000260  
P PDR

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FOI  
11

Tennessee Valley Authority  
ATTN: Dr. Mark O. Medford

Browns Ferry Nuclear Plant

cc:

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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-260

BROWNS FERRY NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 211  
License No. DPR-52

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

- A. The application for amendment by Tennessee Valley Authority (the licensee) dated August 25, 1992, as supplemented on December 23, 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.

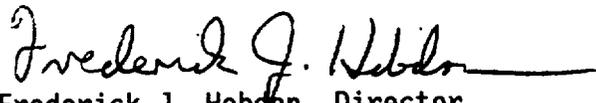
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-52 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 211, 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: April 22, 1993

DOCKET NO. 50-260  
ATTACHMENT TO LICENSE AMENDMENT NO. 211  
FACILITY OPERATING LICENSE NO. DPR-52

UNIT 2  
EFFECTIVE PAGE LIST

REMOVE

3.2/4.2-31  
3.2/4.2-32  
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INSERT

3.2/4.2-31  
3.2/4.2-32  
3.2/4.2-54\*  
3.2/4.2-55

\*Denotes overleaf page

TABLE 3.2.F  
Surveillance Instrumentation

BFN  
Unit 2

3.2/4.2-31

Amendment 211

Minimum # of Operable Instrument Channels	Instrument #	Instrument	Type Indication and Range	Notes
2	LI-3-58A LI-3-58B	Reactor Water Level	Indicator -155" to +60"	(1) (2) (3)
2	PI-3-74A PI-3-74B	Reactor Pressure	Indicator 0-1200 psig	(1) (2) (3)
2	XR-64-50 PI-64-67B	Drywell Pressure	Recorder -15 to +65 psig Indicator -15 to +65 psig	(1) (2) (3)
2	XR-64-50 TI-64-52AB	Drywell Temperature	Recorder, Indicator 0-400°F	(1) (2) (3)
1	XR-64-52	Suppression Chamber Air Temperature	Recorder 0-400°F	(1) (2) (3)
1	N/A	Control Rod Position	6V Indicating )	
1	N/A	Neutron Monitoring	Lights ) SRM, IRM, LPRM ) 0 to 100% power )	(1) (2) (3) (4)
1	PS-64-67B	Drywell Pressure	Alarm at 35 psig )	
1	TS-64-52A & PIS-64-58A & IS-64-67A	Drywell Temperature and Pressure and Timer	Alarm if temp. ) > 281°F and ) pressure >2.5 psig ) after 30 minute ) delay )	(1) (2) (3) (4)
1	LI-84-2A	CAD Tank "A" Level	Indicator 0 to 100%	(1)
1	LI-84-13A	CAD Tank "B" Level	Indicator 0 to 100%	(1)

TABLE 3.2.F (cont'd)  
Surveillance Instrumentation

Minimum # of Operable Instrument Channels	Instrument #	Instrument	Type Indication and Range	Notes
2	H <sub>2</sub> M - 76 - 94 H <sub>2</sub> M - 76 - 104	Drywell and Torus Hydrogen Concentration	0.1 - 20%	(1)
2	PdI-64-137 PdI-64-138	Drywell to Suppression Chamber Differential Pressure	Indicator 0 to 2 psid	(1) (2) (3)
1/Valve		Relief Valve Tailpipe Thermocouple Temperature or Acoustic Monitor on Relief Valve Tailpipe		(5)
1	RR-90-272 RR-90-273	High Range Primary Containment Radiation Recorders	Recorder 1-10 <sup>7</sup> R/Hr	(7)(8)
2	LI-64-159A XR-64-159	Suppression Chamber Water Level-Wide Range	Indicator, Recorder 0-240"	(1) (2) (3)
2	PI-64-160A XR-64-159	Drywell Pressure Wide Range	Indicator, Recorder) 0-300 psig )	(1) (2) (3)
2	TI-64-161 TR-64-161 TI-64-162 TR-64-162	Suppression Pool Bulk Temperature	Indicator, Recorder) ) 30° - 230° F ) )	(1) (2) (3) (4) (6)
1	RM-90-306 RR-90-360	Wide Range Gaseous Effluent Radiation Monitor and recorder	Monitor and recorder (Noble Gas 10 <sup>-7</sup> - 10 <sup>+5</sup> µCi/cc)	(7)(8)(9)

BFN  
Unit 2

3.2/4.2-32

Amendment 211

TABLE 4.2.F

MINIMUM TEST AND CALIBRATION FREQUENCY FOR SURVEILLANCE INSTRUMENTATION

<u>Instrument Channel</u>	<u>Calibration Frequency</u>	<u>Instrument Check</u>
1) Reactor Water Level (LI-3-58A&B)	Once/6 months	Each Shift
2) Reactor Pressure (PI-3-74A&B)	Once/6 months	Each Shift
3) Drywell Pressure (PI-64-67B) and XR-64-50	Once/6 months	Each Shift
4) Drywell Temperature (TI-64-52AB) and XR-64-50	Once/6 months	Each Shift
5) Suppression Chamber Air Temperature (XR-64-52)	Once/6 months	Each Shift
8) Control Rod Position	N/A	Each Shift
9) Neutron Monitoring	(2)	Each Shift
10) Drywell Pressure (PS-64-67B)	Once/6 months	N/A
11) Drywell Pressure (PIS-64-58A)	Once/6 months	N/A
12) Drywell Temperature (TS-64-52A)	Once/6 months	N/A
13) Timer (IS-64-67A)	Once/6 months	N/A
14) CAD Tank Level	Once/6 months	Once/day
15) Containment Atmosphere Monitors	Once/6 months	Once/day

TABLE 4.2.F (Continued)  
 MINIMUM TEST AND CALIBRATION FREQUENCY FOR SURVEILLANCE INSTRUMENTATION

<u>Instrument Channel</u>	<u>Calibration Frequency</u>	<u>Instrument Check</u>
16) Drywell to Suppression Chamber Differential Pressure	Once/6 months	Each Shift
17) Relief Valve Tailpipe Thermocouple Temperature	N/A	Once/month (24)
18) Acoustic Monitor on Relief Valve Tailpipe	Once/cycle (25)	Once/month (26)
19) High Range Primary Containment Radiation Monitors (RR-90-272) (RR-90-273)	Once/18 Months (30)	Once/month
20) Suppression Chamber Water Level-Wide Range (LI-64-159A) (XR-64-159)	Once/18 Months	Once/shift
21) Drywell Pressure - Wide Range (PI-64-160A) (XR-64-159)	Once/18 Months	Once/shift
22) Suppression Pool Bulk Temperature (TI-64-161) (TR-64-161) (TI-64-162) (TR-64-162)	Once/18 Months	Once/shift
23) Wide Range Gaseous Effluent Radiation Monitor and recorder (RM-90-306 and RR-90-360)	Once/18 Months	Once/shift

BEN  
 Unit 2

3.2/4.2-55

Amendment 211



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. 168  
License No. DPR-68

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

- A. The application for amendment by Tennessee Valley Authority (the licensee) dated August 25, 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.

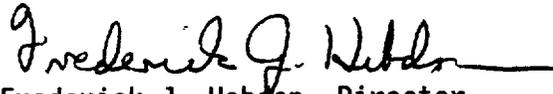
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-68 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 168, 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: April 22, 1993

DOCKET NO. 50-296  
ATTACHMENT TO LICENSE AMENDMENT NO. 168  
FACILITY OPERATING LICENSE NO. DPR-68

UNIT 3  
EFFECTIVE PAGE LIST

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\*Denotes overleaf page

TABLE 3.2.F  
Surveillance Instrumentation

BFN  
Unit 3

<u>Minimum # of Operable Instrument Channels</u>	<u>Instrument #</u>	<u>Instrument</u>	<u>Type Indication and Range</u>	<u>Notes</u>
2	LI-3-46 A LI-3-46 B	Reactor Water Level	Indicator - 155" to +60"	(1) (2) (3)
2	PI-3-54 PI-3-61	Reactor Pressure	Indicator 0-1500 psig	(1) (2) (3)
2	XR-64-50 PI-64-67	Drywell Pressure	Recorder -15 to +65 psig Indicator -15 to +65 psig	(1) (2) (3)
2	TI-64-52 XR-64-50	Drywell Temperature	Recorder, Indicator 0-400°F	(1) (2) (3)
1	XR-64-52	Suppression Chamber Air Temperature	Recorder 0-400°F	(1) (2) (3)
1	N/A	Control Rod Position	6V Indicating ) Lights )	
1	N/A	Neutron Monitoring	SRM, IRM, LPRM ) 0 to 100% power )	(1) (2) (3) (4)
1	PS-64-67	Drywell Pressure	Alarm at 35 psig )	
1	XR-64-50 and PS-64-58 B and IS-64-67	Drywell Temperature and Pressure and Timer	Alarm if temp. ) > 281°F and ) pressure >2.5 psig ) after 30 minute ) delay )	(1) (2) (3) (4)
1	LI-84-2A	CAD Tank "A" Level	Indicator 0 to 100%	(1)
1	LI-84-13A	CAD Tank "B" Level	Indicator 0 to 100%	(1)

3.2/4.2-30

Amendment 168

TABLE 3.2.F (Cont'd)  
Surveillance Instrumentation

<u>Minimum # of Operable Instrument Channels</u>	<u>Instrument #</u>	<u>Instrument</u>	<u>Type Indication and Range</u>	<u>Notes</u>
2	H <sub>2</sub> M - 76 - 94 H <sub>2</sub> M - 76 - 104	Drywell and Torus Hydrogen Concentration	0.1 - 20%	(1)
2	PdI-64-137 PdI-64-138	Drywell to Suppression Chamber Differential Pressure	Indicator 0 to 2 psid	(1) (2) (3)
1/Valve		Relief Valve Tailpipe Thermocouple Temperature or Acoustic Monitor on Relief Valve Tailpipe		(5)
2	LI-64-159A XR-64-159	Suppression Chamber Water Level-Wide Range	Indicator, Recorder 0-240"	(1) (2) (3)
2	PI-64-160A XR-64-159	Drywell Pressure Wide Range	Indicator, Recorder) 0-300 psig )	(1) (2) (3)
2	TI-64-161 TR-64-161 TI-64-162 TR-64-162	Suppression Pool Bulk Temperature	Indicator, Recorder) 30° - 230° F )	(1) (2) (3) (4) (6)



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

ENCLOSURE 3

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 211 TO FACILITY OPERATING LICENSE NO. DPR-52

AMENDMENT NO. 168 TO FACILITY OPERATING LICENSE NO. DPR-68

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNITS 2 AND 3

DOCKET NOS. 50-260 AND 50-296

1.0 INTRODUCTION

By letter dated August 25, 1992, as supplemented December 23, 1992, the Tennessee Valley Authority (TVA) submitted proposed amendments to the Technical Specifications (TS) for the Browns Ferry Nuclear Plant (BFN) Units 2 and 3. The proposed amendments consist of administrative changes developed from TVA's resolution of a Human Engineering Discrepancy identified during review of the BFN control room design. TVA has proposed to revise the indication range for the BFN Unit 2 and 3 drywell pressure recorders, and to correct labeling of various recorders.

The proposed TS changes submitted by the December 23, 1992 supplement, were administrative in nature and only effected BFN, Unit 2. They merely revised the labeling (i.e., unit identification number) for the high range primary containment radiation recorders as listed in TS Tables 3.2.F and 4.2.F. As such, these changes are within the scope of the staff's initial determination of no significant hazards consideration.

2.0 EVALUATION

TVA has proposed to revise the indicating range of drywell pressure indicators and recorders described in TS Table 3.2.F from 0 to 80 psia (pounds per square inch, absolute) to -15 to 65 psig (pounds per square inch, gauge). The revised indicating range is virtually equivalent to the existing range. Therefore, the staff finds this proposed change acceptable.

TVA has also proposed additional administrative changes correcting the labeling of various recorders in BFN Unit 2 and 3 TS Tables 3.2.F and in BFN Unit 2 Table 4.2.F, and to relocate an instrument within BFN Unit 2 Table 3.2.F. These administrative changes make the BFN Unit 2 and 3 TS consistent with the actual plant configurations, and are therefore acceptable.

3.0 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.

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#### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments revise requirements with respect to the use and surveillance of facility components located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that these amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be release 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 amendment changes involve no significant hazards consideration, and there has been no public comment on such finding (57 FR 48828). 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 environment assessment need be prepared in connection with the issuance of the amendment.

#### 5.0 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 no 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: J. Williams

Date: April 22, 1993

AMENDMENT NO. 211 FOR BROWNS FERRY UNIT 2 - DOCKET NO. 50-260  
AMENDMENT NO. 168 FOR BROWNS FERRY UNIT 3 - DOCKET NO. 50-296  
DATED: April 22, 1993

Distribution

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cc: Plant Service list