

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. 130 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, 1986, 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:

•

, <sup>8</sup> \*\*

· · 

. .

. • • •

#### (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 130, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance and shall be implemented within 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

& mall

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

Attachment: Changes to the Technical Specifications

Date of Issuance: November 17, 1986

- 2 -

۰ ۰ ۰ ۰

• • • • . •

· · ·

.

•

.

.

. .

#### ATTACHMENT TO LICENSE AMENDMENT NO. 130

#### FACILITY OPERATING LICENSE NO. DPR-33

#### DOCKET NO. 50-259

Revise Appendix A as follows:

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

### <u>Pages</u> 56 86

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

• 

•

·\* ·

:

· .

TABLE 3.2.A PRIMARY CONTAINMENT AND REACTOR BUILDING ISOLATION INSTRUMENTATION

	Instrument Channels Operabl	le		-	· .
d.	per Trip Sys(1)(	11) Function	Trip Level Setting	Action [1]	Pemirks
7411	2 (12)	Instrument Channel - Main Steam Line Tunnel High Temperature	≤ 200°F	B	1. Above trip setting initiates Hain Steam Line Isolation.
- 3 - 5	: (14)	Instrument Channel - Reactor Water Cleanup System Ploor Drain High Temperature	"16 <b>j - 180°</b> F	c	1. Alove trip setting initiates Isolation of Reactor Water Cleanup Lin. from Reactor and Feactor Witer Seturn Line.
	- 2	Instrument Channel - Reactor Water Cleanup System Space High Temperature	160 - 180°F	с	1
	١	Instrument Channel - Reactor Building Venti- lation High Radiation - Reactor Zone	≤ 100 mr/hr or downscale	G	1. 1 upscale or 2 downscale will 3. Initiate SGTS 5. Isolate reactor zone and refueling floor. c. Close Etmosphere control system.
	ş <b>.</b> 1	Instrument Channel - Reactor Building Venti- lation High Radiation - Refueling Zone	≤ 169 mr/hr or downscale	£	<ol> <li>1 upscale or 2 downscale will a. Initiate SGTS 5. Icolate refueling floor. c. Close atmosphere control system.</li> </ol>
	2 (7) (8)	Instrument Channel SGTS Flow - Train A Heater	R.H. Heater∙ ≤ 2000 cfm	B and (? IO A)	. Zelow 200: cfn, trip setting R.H. heater will shut off.
	2 (7) (8)	Instrument Channel SGTS Plow - Train B Heater	R.H. Heater ≤ 2000 cfm	ا ممط (۵ or ۶)	Selow 2030 cfm, trip setting R.H. heater will shut off.
	2(7)(8)	Instrument Channel SGTS Flow - Train C Heater	R.II. Heater ≤ 2000 cEm	H and (F or F)	Selow 2006 cfm, trip setting S.H. heater will shut off.
		، محمد معد کھ			

i



Amendment No. Hinimum Ko.

85, 114, 130

• .

•

۰.

,

\*\*

.

, • 4 ۰., • \*\*\* 1., P. . . ч

ð • • •

١.

۰, ď

.

1

.

.

.

5 A

•

SURVEILLANCE REQUIREMENTS FOR PRIMARY CONTAINMENT AND REACTOR BUILDING ISOLATION INSTRUMENTA		٦		TABLE 4.	.2.8				
• · · · · · ·	SURVEILLANCE REQU	DIRENENTS POR	PRIMARY	CONTAINHENT	AND REACTOR	BUILDING	150LATION	INSTROMENTATIO	H

.

Punction	Eunctional Test	Calibration Prequency	Instrument Check		
Instrument Channel - Reactor Building Ventilation Bigh Radiation - Refueling Zone	(1) (14) (22)	once/3 months	once/day (8)		
Instrument Channel SGTS Train A Heater	(*)	(9)	H/A		
Instrument Channel - SGTS Train B Heater	[0]	(9)	łva		
Instrument Channel - SGTS Train C Beater	<b>{4}</b>	(9)	N/A I		
Reactor Building Isolation Timer trefueling floors	(9)	once/operating cycle	H/A		

85

ł

Reactor Building Isolation Timer (reactor zone) (4)

once/operating cycle

H/A

Ċ.

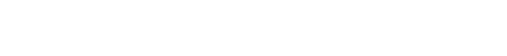
...

.















1

٠.

145 9. 1. 1919

4

¢ .

•



#### 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. 126 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, 1986 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:

ية. في

Α,

· 

\* . . .

÷

r

•

•.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.126, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance and shall be implemented within 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: November 17, 1986

.

ہ مہ قی ہے۔ یہ مہ قی جا ہے۔ یہ مہ ہے ہے ہے۔ یہ ہوتے ہے ہ

## 

•

.

· ·

,

### ATTACHMENT TO LICENSE AMENDMENT NO. 126

#### 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.

Pages 56 86

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

. 

--

Amendment No. \$2, 10\$, 126

lhann	rument els Operab rip S <u>ys(1)</u>		Trip Level Setting	Action [1]	Pemirks
•	2 (12)	Instrument Channel - Hain Steam Line Tunnel High Temperature	≤ 200°F	B	1. Above trip setting initiates Hain Steam Line Isolation.
5	2 (14)	Instrument Channel - Reactor Water Cleanup System Ploor Drain High Temperature	165 - 180°F	C	1. Atuve trip setting initiates Isolation of Reactor Mater Cleanup I.A. from Reactor and Feactor Witer Leturn Line.
	2	Instrument Channel - Reactor Water Cleanup System Space High Temperature	160 - 180°F	C _	1. June 25 01:0Ve
	1	Instrument Channel - Reactor Building Venti- lation Righ Radiation - Reactor Zone	s 100 mr/hr or downscale	G	1. 1 upscale or 2 downscale will 4. Initiate SGTS 5. Isolate reactor some and retueling floor. c. Close atmosphere control system.
36	۱	Instrument Channel - Reactor Building Venti- lation High Radiation - Refueling Zone	≤ 100 mr/hr or downscale	F	<ol> <li>1 upscale or 2 downscale will</li> <li>a. Initiate SGTS</li> <li>c. Isolate refueling floor.</li> <li>c. Close atmosphere control system</li> </ol>
	2 (7) (8)	Instrument Channel SGIS Flow - Train A Heater	R.H. Neater 5 2000 cfm	H and (A or F)	2 Zelow 2035 cfm, trip setting R.W. heater will shut off.
	2 (7) (8)	Instrument Channel SGTS Plow - Train B Neater	R.H. Ueater ≤ 2000 cfm	ll and (A or 5)	Selow 2030 cfm, trip setting R.N. heater will shut off.
	2 (7) (8)	Instrument Channel SGTS Flow - Train C Neater	.∙ R.H. Heater ≤ 2000 cfm	H and (A or F)	aclow 2000 cfm, trip setting %.11. heater will shut off.

TABLE 3.2.A PRIMARY CONTAINMENT AND REACTOR BUILDING ISOLATION INSTRUMENTATION .

No. Instrument Channels Ope Per Trip Sys

• •

.

۲. ۲. ۲. ۲. ۱. ۲. ۳. ۱. ۲. ۴. ۱. ۲. ۴. ۱. ۲. ۴. ۱. ۲. ۴. ۱. ۲. ۴. ۱. ۲. ۴. ۱. ۲. ۴. ۱. ۲. ۴. ۱. ۲. ۴. ۱. ۲. ۲.

• -

-. •

. 

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

tunction	Einctional Test	Calibration Frequency	Instrument Check		
Instrument Channel - Reactor Building Ventilation Bigh Radiation - Refueling Ione	(1) (14) (22)	once/3 sonths	, once/day (8)		
Instrument Channel - BGTS Train & Beater	(4)	(9)	HZA		
. Instrument Channel - SGTS Train B Weater	(4)	(9)	R/A		
Instrument Channel - SGTS Train C Beater	·(4) .	(9) .	• • • • • • • • • • • • • • • • • • •		
Reactor Building Isolation Timer (refueling floor)	(4)	once/operating cycle	NZA		

86

Reactor Building Isolation Timer (reactor sone)

(4)

once/operating cycle

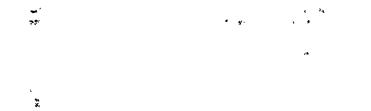
- H/X

i

· ·

•





.

•

-.

ખા' રુદ્ર થી તો ⊅શ' ' છ- રક ર



#### 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. 101 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, 1986 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. 101, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance and shall be implemented within 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: November 17, 1986

- 2 -

. .

· , ·

4

. • •

•

### ATTACHMENT TO LICENSE AMENDMENT NO. 101

#### 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.

### Pages 58

58 89

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

.

.

.

• • • • . .

.



.

.

Inst	um No. rument els Operabl		SUL YNC HLYCLAH RATTON RATTONG I'R		IENTAT	
per T	rip <u>Sys(1)(</u>	11) Function	Trip Level Setting	Action [1]		Perssrkii
<b>-</b>						
	2 (14)	Instrument Channel - Reactor Water Cleanup System Ploor Drain High Temperature	165 - 100°F	c	۱.	Atuve trup Setting initiates Isolation of Reactor Water Cleanup Lin - Brom Reactor and Feactor Witer Seturn Line.
	2	Instrument Channel - Reactor Water Cleanup System Space Uigh Temperature	165 - 183°F	с	1.	- INE 25 11: DVC
v	١	Instrument Channel - Reactor Building Venti- lation Righ Radiation - Reactor Zone	≤ 100 mr/nr or downscale	G	<b>1.</b>	1 upscale or 2 downscale will 1. Initiate SGTS 5. Isolate reactor zone and retueling floor. c. Closw accosphere control system.
8	1.	Instrument Channel - Reactor Building Venti- lation High Radiation - Refueling Zone	≤ 100 mr/hr or downscale	F	۱.	1 upscale or 2 downscale will a. Initiate SGTS 5. Isolate refueling floor. c. Close atmosphere control system.
	2 (7) (B)	Instrument Channel SGIS Flow - Train A Heater	R.H. Heater 5 2000 cfm	B and (λ or Σ)		Zelow 2001 cín, trip setting R.N. heater will shut off.
	2(7)(0)	Instrument Channel SGTS Ploy - Train B Neater	R.H. Beater ≤ 2000 cfm	H and (A or 5)		Selow 2000 cfm, trip setting R.H.
	2 (7) (8)	Instrument Channel SGTS Flow - Train C . Heater	R.II. Neater S 2000 cfm	H and (A OT F)		heater will shut off. Jelow 2006 cfm, trip setting %.M. heater: will shut off.

TABLE J. 2.A PRIMARY CONTAINMENT AND REACTOR BUILDING INDIATION INSTRUMENTATION

۵ ۰ ۰ · .

• · · · · · 

. · · · .

-•

.,

•

- -Amendment No. \$\$, 101

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

.

. Punction	functional Test	Calibration Frequency	Instrument Check
Instrument Channel - Reactor Building Ventilation High Radiation - Refueling Ione	(1) (14) (22)	once/3 sonths	once/day (8)
Instrument Channel - SGTS Train A Beater.	(4)	(9)	N/A
Instrument Channel - SGTS Train B Bester	(4)	(9)	" N/A
Instrument Chennel - SGTS Train C Hoster	- (4) -	(9)	R/A
Reactor Building Isolation Timer (refueling floor)	(4)	once/operating cycle .	8/A

3

:

Reactor Building Isolation Timer (reactor sone)	•	(4)	once/operating cycle	<b>N/A</b>
Thest (Inscrut Bough				

:

# • ۳ ۰ ۰

. **, '** 

n 1 .

.

r.