

August 24, 1987

Docket Nos. 50-259/260
and 50-296

DISTRIBUTION

Mr. S. A. White
Manager of Nuclear Power
Tennessee Valley Authority
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Dear Mr. White:

SUBJECT: REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENTS
(TS-226) (TAC 64706, 64707 AND 64708)

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

On July 17, 1987, the Commission issued Amendment No. 134 to Facility Operating License No. DPR-23, Amendment No. 130 to Facility Operating License No. DPR 52 and Amendment No. 105 to Facility Operating License No. DPR-68 for the Browns Ferry Nuclear Plant, Units 1, 2, and 3, respectively. Several copies of the amendments were issued with one of the technical specification (TS) pages inadvertently omitted. We have enclosed the omitted TS pages. Please discard the previously issued TS pages for Amendment Nos. 134, 130, and 105 for Browns Ferry Nuclear Plant, Units 1, 2, and 3, respectively, and replace them with the enclosed pages.

We regret any inconvenience this omission may have caused.

Sincerely,

Original Signed By

John A. Zwolinski, Assistant Director
for Projects
TVA Projects Division
Office of Special Projects

Enclosures:

1. TS pages to Amendment No. 134
2. TS pages to Amendment No. 130
3. TS pages to Amendment No. 105

cc w/enclosures:
See next page

OSP:TVA/LA
CJamerson
8/24/87

OSP:TVA/PM
JStang:jg
8/24/87

OSP:TVA/PM
GGears
8/24/87

TVA:AD/P
JZwolinski
8/24/87

Mr. S. A. White
Tennessee Valley Authority

Browns Ferry Nuclear Plant
Units 1, 2, and 3

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TABLE 3.1.A
 REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENTS

Min. No. of Operable Instr. Channels Per Trip System (1)(23)	Trip Function	Trip Level Setting	Shut-down	Modes in Which Function Must Be Operable			Action (1)
				Refuel (7)	Startup/Hot Standby	Run	
1	Mode Switch in Shutdown		X	X	X	X	1.A
1	Manual Scram		X	X	X	X	1.A
3	IRM (16) High Flux	<120/125 Indicated on scale	X(22)	X(22)	X	(5)	1.A
3	Inoperable			X	X	(5)	1.A
2	APRM (16) (24) (25) High Flux (Flow Biased)	See Spec. 2.1.A.1				X	1.A or 1.B
2	High Flux (Fixed Trip)	< 120%				X	1.A or 1.B
2	High Flux Inoperative	< 15% rated power (13)		X(21)	X(17)	(15)	1.A
2	Downscale	≥ 3 Indicated on Scale		X(21)	X(17)	X	1.A
				(11)	(11)	X(12)	1.A or 1.B
2	High Reactor Pressure	≤ 1055 psig		X(10)	X	X	1.A
2	High Drywell Pressure (14)	≤ 2.5 psig		X(8)	X(8)	X	1.A
2	Reactor Low Water Level (14)	≥ 538" above vessel zero		X	X	X	1.A

BFN-Unit 1

BFN
 Unit 1
 8709030247 870824
 PDR ADDCK 05000259
 PDR

3.1/4.1-3

Amendment No. 134
 Corrected 8/24/87

BFN
Unit 1

TABLE 3.1.A
REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENTS

Min. No. of Operable Instr. Channels Per Trip System (1)(23)	Trip Function	Trip Level Setting	Shut-down	Modes in Which Function Must Be Operable			Action (1)
				Refuel (7)	Startup/Hot Standby	Run	
2	High Water Level in West Scram Discharge Tank (LS-85-45A-D)	≤ 50 Gallons	X(2)	X(2)	X	X	1.A
2	High Water Level in East Scram Discharge Tank (LS-85-45E-H)	≤ 50 Gallons	X(2)	X(2)	X	X	1.A
4	Main Steam Line Isolation Valve Closure	≤10% Valve Closure		X(3)(6)	X(3)(6)	X(6)	1.A or 1.C
2	Turbine Control Valve Fast Closure or Turbine Trip	≥550 psig				X(4)	1.A or 1.D
4	Turbine Stop Valve Closure	≤10% Valve Closure				X(4)	1.A or 1.D
2	Turbine First Stage Pressure Permissive	not ≥154 psig		X(18)	X(18)	X(18)	1.A or 1.D (19)
2	Main Steam Line High Radiation (14)	3 X Normal Full Power Background (20)		X(9)	X(9)	X(9)	1.A or 1.C

BFN-Unit 1

3.1/4.1-4

Amendment No. 134
Corrected 8/24/87

TABLE 3.1.A
 REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENTS

Min. No. of Operable Instr. Channels Per Trip System (1)(23)	Trip Function	Trip Level Setting	Shut-down	Modes in which Function Must Be Operable			Action (1)
				Refuel (7)	Startup/Hot Standby	Run	
1	Mode Switch in Shutdown		X	X	X	X	1.A
1	Manual Scram		X	X	X	X	1.A
3	IRM (16) High Flux	≤ 120/125 Indicated on scale	X(22)	X(22)	X	(5)	1.A
3	Inoperable			X	X	(5)	1.A
2	APRM (16) (24) (25) High Flux (Flow Biased)	See Spec. 2.1.A.1				X	1.A or 1.B
2	High Flux (Fixed Trip)	< 120%				X	1.A or 1.B
2	High Flux Inoperative	≤ 15% rated power (13)		X(21)	X(17)	(15)	1.A
2	Downscale	≥ 3 Indicated on Scale		X(21)	X(17)	X	1.A
2	High Reactor Pressure (PIS-3-22AA, BB, C, D)	< 1055 psig		(11)	(11)	X(12)	1.A or 1.B
2	High Reactor Pressure (PIS-3-22AA, BB, C, D)	< 1055 psig		X(10)	X	X	1.A
2	High Drywell Pressure (PIS-64-56 A-D)	≤ 2.5 psig		X(8)	X(8)	X	1.A
2	Reactor Low Water Level (LIS-3-203 A-D)	≥ 538" above vessel zero		X	X	X	1.A

BFN-Unit 2

BFN
 Unit 2

3.1/4.1-3

Amendment No. 130
 Corrected 8/24/87

BFN
Unit 2

TABLE 3.1.A
REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENTS

Min. No. of Operable Instr. Channels Per Trip System (1)(23)	Trip Function	Trip Level Setting	Modes in which Function Must Be Operable				Action (1)
			Shut-down	Refuel (7)	Startup/Hot Standby	Run	
2	High Water Level in West Scram Discharge Tank (LS-85-45A-D)	≤ 50 Gallons	X(2)	X(2)	X	X	1.A
2	High Water Level in East Scram Discharge Tank (LS-85-45E-H)	≤ 50 Gallons	X(2)	X(2)	X	X	1.A
4	Main Steam Line Isolation Valve Closure	≤10% Valve Closure				X(6)	1.A or 1.C
2	Turbine Control Valve Fast Closure or Turbine Trip	≥550 psig				X(4)	1.A or 1.D
4	Turbine Stop Valve Closure	≤10% Valve Closure				X(4)	1.A or 1.D
2	Turbine First Stage Pressure Permissive (PIS-1-81A&B, PIS-1-91A&B)	not ≥154 psig		X(18)	X(18)	X(18)	1.A or 1.D (19)
2	Main Steam Line High Radiation (14)	3 X Normal Full Power Background (20)		X(9)	X(9)	X(9)	1.A or 1.C
2	Low Scram Pilot Air Header Pressure	≥50 psig	X(2)	X(2)	X	X	1.A

BFN-Unit 2

3.1/4.1-4

Amendment No. 130
Corrected 8/24/87

TABLE 3.1.A
 REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENTS

Min. No. of Operable Instr. Channels Per Trip System (1)(23)	Trip Function	Trip Level Setting	Shut-down	Modes in Which Function Must Be Operable			Action (1)
				Refuel (7)	Startup/Hot Standby	Run	
1	Mode Switch in Shutdown		X	X	X	X	1.A
1	Manual Scram		X	X	X	X	1.A
3	IRM (16) High Flux	<120/125 Indicated on scale	X(22)	X(22)	X	(5)	1.A
3	Inoperative			X	X	(5)	1.A
2	APRM (16) (24) (25) High Flux (Fixed Trip)	≤ 120%				X	1.A or 1.B
2	High Flux (Flow Biased)	See Spec. 2.1.A.1				X	1.A or 1.B
2	High Flux Inoperative	< 15% rated power (13)		X(21)	X(17)	(15)	1.A
2	Downscale	≥ 3 Indicated on Scale		X(21)	X(17)	X	1.A
				(11)	(11)	X(12)	1.A or 1.B
2	High Reactor Pressure	≤ 1055 psig		X(10)	X	X	1.A
2	High Drywell Pressure (14)	≤ 2.5 psig		X(8)	X(8)	X	1.A
2	Reactor Low Water Level (14)	≥ 538" above vessel zero		X	X	X	1.A

BFN-Unit 3

BFN
Unit 3

3.1/4.1-2

Amendment No. 105
Corrected 8/24/87

BFN
Unit 3

TABLE 3.1.A
REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENTS

Min. No. of Operable Instr. Channels Per Trip System (1)(23)	Trip Function	Trip Level Setting	Shut-down	Modes in Which Function Must Be Operable			Action (1)
				Refuel (7)	Hot Standby	Run	
2	High Water Level in West Scram Discharge Tank (LS-85-45A-D)	≤ 50 Gallons	X(2)	X(2)	X	X	1.A
2	High Water Level in East Scram Discharge Tank (LS-85-45E-H)	≤ 50 Gallons	X(2)	X(2)	X	X	1.A
4	Main Steam Line Isolation Valve Closure	≤10% Valve Closure				X(6)	1.A or 1.C
2	Turbine Control Valve Fast Closure or Turbine Trip	≥550 psig				X(4)	1.A or 1.D
4	Turbine Stop Valve Closure	≤10% Valve Closure				X(4)	1.A or 1.D
2	Turbine First Stage Pressure Permissive	not ≥154 psig		X(18)	X(18)	X(18)	1.A or 1.D (19)
2	Main Steam Line High Radiation (14)	3 X Normal Full Power Background (20)		X(9)	X(9)	X(9)	1.A or 1.C

BFN-Unit 3

3.1/4.1-3

Amendment No. 105
Corrected 8/24/87