

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

ATTACHMENT TO LICENSE AMENDMENT NO. 190

TO FACILITY COMBINED LICENSE NO. NPF-91

DOCKET NO. 52-025

Replace the following pages of the Facility Combined License No. NPF-91 with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Facility Combined License No. NPF-91				
<u>REMOVE</u> 7	<u>INSERT</u> 7			
Appendix A to Facility Con	nbined License No. NPF-91			
<u>REMOVE</u>	INSERT			
3.3.8-7	3.3.8-7			
3.3.8-8	3.3.8-8			
3.3.9-5	3.3.9-5			
3.3.9-6	3.3.9-6			
3.3.10-5	3.3.10-5			
3.3.16-1	3.3.16-1			
3.3.19-3	3.3.19-3			
3.3.20-3	3.3.20-3			
3.5.7-1	3.5.7-1			
3.5.8-1	3.5.8-1			
3.5.8-2	3.5.8-2			
3.5.8-3	3.5.8-3			

(7) <u>Reporting Requirements</u>

- (a) Within 30 days of a change to the initial test program described in UFSAR Section 14, Initial Test Program, made in accordance with 10 CFR 50.59 or in accordance with 10 CFR Part 52, Appendix D, Section VIII, "Processes for Changes and Departures," SNC shall report the change to the Director of NRO, or the Director's designee, in accordance with 10 CFR 50.59(d).
- (b) SNC shall report any violation of a requirement in Section 2.D.(3), Section 2.D.(4), Section 2.D.(5), and Section 2.D.(6) of this license within 24 hours. Initial notification shall be made to the NRC Operations Center in accordance with 10 CFR 50.72, with written follow up in accordance with 10 CFR 50.73.
- (8) <u>Incorporation</u>

The Technical Specifications, Environmental Protection Plan, and ITAAC in Appendices A, B, and C, respectively of this license, as revised through Amendment No. 190, are hereby incorporated into this license.

(9) <u>Technical Specifications</u>

The technical specifications in Appendix A to this license become effective upon a Commission finding that the acceptance criteria in this license (ITAAC) are met in accordance with 10 CFR 52.103(g).

(10) Operational Program Implementation

SNC shall implement the programs or portions of programs identified below, on or before the date SNC achieves the following milestones:

- (a) Environmental Qualification Program implemented before initial fuel load;
- (b) Reactor Vessel Material Surveillance Program implemented before initial criticality;
- (c) Preservice Testing Program implemented before initial fuel load;
- (d) Containment Leakage Rate Testing Program implemented before initial fuel load;
- (e) Fire Protection Program
 - 1. The fire protection measures in accordance with Regulatory Guide (RG) 1.189 for designated storage building areas (including adjacent fire areas that could affect the storage area) implemented before initial receipt

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS
۱.	Containment Pressure			
	a. – Low	1,2,3,4,5 ^(a) ,6 ^(a)	4	Р
	b. – Low 2	1,2,3,4,5 ^(a) ,6 ^(a)	4	Р
2.	Containment Pressure – High 2	1,2,3,4	4	Н
3.	Containment Radioactivity – High	1,2,3,4 ^(b)	4	I
4.	Containment Radioactivity – High 2	1,2,3	4	I
5.	Pressurizer Pressure – Low 3	1,2,3 ^{(c)(l)}	4	E
6.	Pressurizer Water Level – Low	1,2	4	D
7.	Pressurizer Water Level – Low 2	1,2,3,4 ^(b)	4	F
		4 ^(d) ,5 ^(e)	4	J
8.	Pressurizer Water Level – High	1,2,3	4	I
9.	Pressurizer Water Level – High 2	1,2,3,4 ^(f)	4	I
10.	Pressurizer Water Level – High 3	1,2,3,4 ^(f)	4	Q
11.	RCS Cold Leg Temperature (T_{cold}) – Low 2	1,2,3 ^{(c)(l)}	4 per loop	E
12.	Reactor Coolant Average Temperature (T_{avg}) – Low	1,2	4	D
13.	Reactor Coolant Average Temperature (T_{avg}) – Low 2	1,2	4	D
14.	RCS Wide Range Pressure – Low	1,2,3,4	4	н
		5 ⁽ⁿ⁾	4	К
		6 ^{(g)(n)}	4	L

Table 3.3.8-1 (page 1 of 2)
Engineered Safeguards Actuation System Instrumentation

(a) Without an open containment air flow path \geq 6 inches in diameter.

(b) With the RCS not being cooled by the Normal Residual Heat Removal System (RNS).

(c) Above the P-11 (Pressurizer Pressure) interlock.

- (d) With the RCS being cooled by the RNS.
- (e) With RCS not VENTED and CMT actuation on Pressurizer Water Level Low 2 not blocked.
- (f) With all four cold leg temperatures > 275°F.
- (g) With upper internals in place.
- (I) Below the P-11 (Pressurizer Pressure) interlock and RCS boron concentration is less than that necessary to meet the SDM requirements at an RCS temperature of 200°F.
- (n) For Unit 3 only, not required to be OPERABLE prior to initial criticality.

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS
5.	Core Makeup Tank (CMT) Level – Low 3	1,2,3,4 ^(b)	4 per tank	F
		$4^{(d)}, 5^{(h)}$	4 per OPERABLE tank	J
6.	CMT Level – Low 6	1,2,3,4 ^(b)	4 per tank	F
		$4^{(d)}, 5^{(h)(n)}$	4 per OPERABLE tank	J
7.	Source Range Neutron Flux Doubling	$2^{(i)}, 3^{(i)}, 4^{(j)}$	4	I
		5 ^(j)	4	I
8.	IRWST Lower Narrow Range Level – Low 3	1,2,3,4 ^(b)	4	F
		4 ^(d) ,5 ⁽ⁿ⁾	4	Μ
		6 ^{(g)(n)}	4	Ν
9.	Reactor Coolant Pump Bearing Water Temperature – High 2	1,2,3,4	4 per RCP	Ο
).	SG Narrow Range Water Level – Low 2	1,2,3,4 ^(b)	4 per SG	F
1.	SG Wide Range Water Level – Low 2	1,2,3,4 ^(b)	4 per SG	F
2.	SG Narrow Range Water Level High	1,2,3,4	4 per SG	I
3.	SG Narrow Range Water Level – High 3	1,2	4 per SG	D
		3,4	4 per SG	I
1 .	Steam Line Pressure – Low 2	$1,2,3^{(c)(l)(m)}$	4 per steam line	G
5.	Steam Line Pressure – Negative Rate – High	3 ^(k)	4 per steam line	I

Table 3.3.8-1 (page 2 of 2) Engineered Safeguards Actuation System Instrumentation

(b) With the RCS not being cooled by the Normal Residual Heat Removal System (RNS).

- (c) Above the P-11 (Pressurizer Pressure) interlock.
- (d) With the RCS being cooled by the RNS.
- (g) With upper internals in place.
- (h) With RCS not VENTED.
- (i) With unborated water source flow paths not isolated except when critical or except during intentional approach to criticality.
- (j) With unborated water source flow paths not isolated.
- (k) Below the P-11 (Pressurizer Pressure) interlock when Steam Line Pressure Low 2 is blocked.
- (I) Below the P-11 (Pressurizer Pressure) interlock and RCS boron concentration is less than that necessary to meet the SDM requirements at an RCS temperature of 200°F.
- (m) Below the P-11 (Pressurizer Pressure) interlock when Steam Line Pressure Low 2 is not blocked.
- (n) For Unit 3 only, not required to be OPERABLE prior to initial criticality.

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS
1.	Safeguards Actuation - Manual Initiation	1,2,3,4	2 switches	E
		5	2 switches	J
2.	Core Makeup Tank (CMT) Actuation - Manual	1,2,3,4 ^(a)	2 switches	D
	Initiation	4 ^(b) , 5 ^(d)	2 switches	G
3.	Containment Isolation - Manual Initiation	1,2,3,4	2 switches	E
1.	Steam Line Isolation - Manual Initiation	1,2,3,4	2 switches	F
5.	Feedwater Isolation - Manual Initiation	1,2,3,4	2 switches	F
3 .	 ADS Stages 1, 2 & 3 Actuation - Manual Initiation 	1,2,3,4	2 switch sets	E
		5 ^(d)	2 switch sets	н
7.	ADS Stage 4 Actuation - Manual Initiation	1,2,3,4	2 switch sets	E
		5 ⁽ⁱ⁾	2 switch sets	н
		6 ^{(e)(i)}	2 switch sets	I
3.	Passive Containment Cooling Actuation -	1,2,3,4	2 switches	E
	Manual Initiation	5 ^(f)	2 switches	J
		6 ^(f)	2 switches	К
Э.	Passive Residual Heat Removal Heat	1,2,3,4	2 Switches	E
	Exchanger Actuation - Manual Initiation	5 ^(c)	2 switches	G
10.	Chemical and Volume Control System Makeup Isolation - Manual Initiation	1,2,3,4 ^(h)	2 switches	F
11.	Normal Residual Heat Removal System Isolation - Manual Initiation	1,2,3	2 switch sets	F

Table 3.3.9-1 (page 1 of 2) Engineered Safeguards Actuation System Instrumentation

(a) With the RCS not being cooled by the Normal Residual Heat Removal System (RNS).

(b) With the RCS being cooled by the RNS.

(c) With the RCS pressure boundary intact.

- (d) With RCS not VENTED.
- (e) With upper internals in place.
- (f) With decay heat > 7.0 MWt.
- (h) With all four cold leg temperatures > 275°F.
- (i) For Unit 3 only, not required to be OPERABLE prior to initial criticality.

Table 3.3.9-1 (page 2 of 2)Engineered Safeguards Actuation System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS
12.	In-Containment Refueling Water Storage Tank	1,2,3,4 ^(a)	2 switch sets	D
	(IRWST) Injection Line Valve Actuation – Manual Initiation	4 ^(b) ,5 ⁽ⁱ⁾	2 switch sets	J
	6 ⁽ⁱ⁾	2 switch sets	К	
13.	IRWST Containment Recirculation Valve	1,2,3,4 ^(a)	2 switch sets	D
	Actuation – Manual Initiation	4 ^(b) ,5 ⁽ⁱ⁾	2 switch sets	J
		6 ⁽ⁱ⁾	2 switch sets	К
14.	SG Power Operated Relief Valve and Block Valve Isolation – Manual Initiation	1,2,3,4 ^(a)	2 switches	D
15.	Containment Vacuum Relief Valve Actuation – Manual Initiation	1,2,3,4,5 ^(g) ,6 ^(g)	2 switches	L

(a) With the RCS not being cooled by the Normal Residual Heat Removal System (RNS).

(b) With the RCS being cooled by the RNS.

(g) Without an open containment air flow path \geq 6 inches in diameter.

(i) For Unit 3 only, not required to be OPERABLE prior to initial criticality.

APPLICABLE MODES **OR OTHER SPECIFIED** REQUIRED FUNCTION CONDITIONS CHANNELS CONDITIONS 1. Hot Leg Level - Low 4 5^{(a)(e)},6^{(b)(e)} С 1 per loop 5^{(c)(e)} 2. Hot Leg Level - Low 2 1 per loop D 6^{(d)(e)} Е 1 per loop

Table 3.3.10-1 (page 1 of 1)Engineered Safeguards Actuation System Instrumentation

(a) With CMT actuation on Pressurizer Water Level - Low 2 blocked.

(b) With upper internals in place and with CMT actuation on Pressurizer Water Level - Low 2 blocked.

(c) Below the P-12 (Pressurizer Level) interlock.

(d) With the water level < 23 feet above the top of the reactor vessel flange.

(e) For Unit 3 only, not required to be OPERABLE prior to initial criticality.

3.3 INSTRUMENTATION

- 3.3.16 Engineered Safety Feature Actuation System (ESFAS) Actuation Logic Shutdown
- LCO 3.3.16 Four divisions with one subsystem for each of the following Functions shall be OPERABLE:
 - a. ESF Coincidence Logic; and
 - b. ESF Actuation.

- NOTES -

- 1. Only the divisions necessary to support Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization are required to be OPERABLE during movement of irradiated fuel assemblies when not in MODE 1, 2, 3, 4, 5, or 6.
- 2. For Unit 3 only, ESF actuation Function for ADS stage 4 flow paths, In-Containment Refueling Water Storage Tank injection and recirculation flow paths, and CVS letdown isolation valves, not required to be OPERABLE prior to initial criticality.

APPLICABILITY: MODES 5 and 6, During movement of irradiated fuel assemblies.

ACTIONS

- NOTE -

Separate condition entry is allowed for each Function.

CONDITION		REQUIRED ACTION		COMPLETION TIME
A.	One or more Functions within one required division inoperable.	A.1	Restore required division to OPERABLE status.	72 hours

Table 3.3.19-1 (page 1 of 1)	
DAS Manual Controls	

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CONTROLS
1.	Reactor trip manual controls	1,2	2 switches
2.	Passive Residual Heat Removal Heat Exchanger (PRHR HX) control and In- Containment Refueling Water Storage Tank (IRWST) gutter control valves	1,2,3,4,5 ^(a)	2 switches
3.	Core Makeup Tank (CMT) isolation valves	1,2,3,4,5 ^(a)	2 switches
4.	Automatic Depressurization System (ADS) stage 1 valves	1,2,3,4,5 ^(a)	2 switches
5.	ADS stage 2 valves	1,2,3,4,5 ^(a)	2 switches
6.	ADS stage 3 valves	1,2,3,4,5 ^(a)	2 switches
7.	ADS stage 4 valves	1,2,3,4,5 ^(d) ,6 ^{(c)(d)}	2 switches
8.	IRWST injection squib valves	1,2,3,4,5 ^(d) ,6 ^(d)	2 switches
9.	Containment recirculation valves	1,2,3,4,5 ^(d) ,6 ^(d)	2 switches
10.	Passive containment cooling drain valves	1,2,3,4,5 ^(b) ,6 ^(b)	2 switches
11.	Selected containment isolation valves	1,2,3,4,5,6	2 switches

- (a) With Reactor Coolant System (RCS) pressure boundary intact.
- (b) With the reactor decay heat > 7.0 MWt.
- (c) With upper internals in place.
- (d) For Unit 3 only, not required to be OPERABLE prior to initial criticality.

Table 3.3.20-1 (page 1 of 1) ADS and IRWST Injection Blocking Device

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER DIVISION	SURVEILLANCE REQUIREMENTS
1.	Core Makeup Tank Level for Automatic Unblocking ^(a)	1,2,3,4 ^(b)	2	SR 3.3.20.2 SR 3.3.20.3 SR 3.3.20.5
2.	ADS and IRWST Injection Block Switches for Manual Unblocking	1,2,3,4 ^(b)	1	SR 3.3.20.3 SR 3.3.20.4
		$4^{(c)}, 5^{(d)}, 6^{(d)}$	1	SR 3.3.20.1 SR 3.3.20.3 SR 3.3.20.4

(a) Not required to be OPERABLE with associated divisional ADS and IRWST Injection Block switch in the "unblock" position.

(b) With the Reactor Coolant System (RCS) not being cooled by the Normal Residual Heat Removal System (RNS).

(c) With the RCS being cooled by the RNS.

(d) For Unit 3 only, not required to be OPERABLE prior to initial criticality.

3.5 PASSIVE CORE COOLING SYSTEM (PXS)

3.5.7 In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 5

LCO 3.5.7 The IRWST, with one injection flow path and one containment recirculation flow path, shall be OPERABLE.

- NOTE -

For Unit 3 only, not required to be OPERABLE prior to initial criticality.

APPLICABILITY: MODE 5.

ACTIONS

	CONDITION		REQUIRED ACTION	COMPLETION TIME
A.	Required motor operated containment recirculation isolation valve not fully open.	A.1	Open required motor operated containment recirculation isolation valve.	72 hours
В.	Required IRWST injection flow path with noncondensible gas volume in one squib valve outlet line pipe stub not within limit.	B.1	Restore noncondensible gas volume in squib valve outlet line pipe stub to within limit.	72 hours
C.	Required IRWST injection flow path with noncondensible gas volume in both squib valve outlet line pipe stubs not within limit.	C.1	Restore noncondensible gas volume in one squib valve outlet line pipe stub to within limit.	8 hours

3.5 PASSIVE CORE COOLING SYSTEM (PXS)

3.5.8 In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 6

LCO 3.5.8 The IRWST, with one injection flow path and one containment recirculation flow path, shall be OPERABLE.

- NOTE -

For Unit 3 only, not required to be OPERABLE prior to initial criticality.

APPLICABILITY: MODE 6.

ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME		
Α.	Required motor operated containment recirculation isolation valve not fully open.	A.1	Open required motor operated containment recirculation isolation valve.	72 hours		
В.	Required IRWST injection flow path with noncondensible gas volume in one squib valve outlet line pipe stub not within limit.	B.1	Restore noncondensible gas volume in squib valve outlet line pipe stub to within limit.	72 hours		
C.	Required IRWST injection flow path with noncondensible gas volume in both squib valve outlet line pipe stubs not within limit.	C.1	Restore noncondensible gas volume in one squib valve outlet line pipe stub to within limit.	8 hours		

ACTIONS (continued)

CONDITION		REQUIRED ACTION		COMPLETION TIME
D.	IRWST and refueling cavity boron concentra-tion not within limits.	D.1	Restore IRWST to OPERABLE status.	8 hours
	<u>OR</u>			
	IRWST and refueling cavity borated water temperature not within limits.			
	<u>OR</u>			
	IRWST and refueling cavity borated water volume < 73,100 cu. ft and ≥ 70,907 cu. ft.			
E.	Required motor operated IRWST isolation valve not fully open.	E.1	Restore required motor operated IRWST isolation valve to fully open condition with power	1 hour
	<u>OR</u>		removed.	
	Power is not removed from required motor operated IRWST isolation valve.			
F.	Required Action and associated Completion Time of Condition A, B, C, D, or E not met.	F.1	Initiate action to establish water level ≥ 23 feet above the top of the reactor vessel flange.	Immediately
	OR	AND		
	LCO not met for reasons other than Condition A, B, C, D, or E.	F.2	Suspend positive reactivity additions.	Immediately

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.5.8.1	Verify the IRWST and refueling cavity water temperature is < 120°F.	24 hours
SR 3.5.8.2	Verify the IRWST and refueling cavity water total borated water volume is \geq 73,100 cu. ft.	24 hours
SR 3.5.8.3	 - NOTES - 1. Penetration flow path(s) may be unisolated intermittently under administrative controls. 2. Only required to be met with refueling cavity and spent fuel pool volumes not in communication. Verify Spent Fuel Pool Cooling System containment isolation valves are closed. 	31 days
SR 3.5.8.4	Verify the IRWST and refueling cavity boron concentration is ≥ 2600 ppm and ≤ 2900 ppm.	31 days <u>AND</u> Once within 6 hours after each solution volume increase of ≥ 15,000 gal
SR 3.5.8.5	For the IRWST and flow paths required to be OPERABLE, the following SRs are applicable: SR 3.5.6.3 SR 3.5.6.6 SR 3.5.6.8 SR 3.5.6.10 SR 3.5.6.5 SR 3.5.6.7 SR 3.5.6.9 SR 3.5.6.11	In accordance with applicable SRs