

neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- D. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components;
- E. Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by operation of the facility.

- 3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Section 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

- A. Maximum Power Level

The licensee is authorized to operate the facility at a steady state reactor core power level not in excess of 2339 megawatts thermal.

- B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. are hereby incorporated in the license.

The license shall operate the facility in accordance with the Technical Specifications.

- (1) For Surveillance Requirements (SRs) that are new in Amendment 176 to Final Operating License DPR-23, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 176. For SRs that existed prior to Amendment 176, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 176.

RPS Instrumentation 3.3.1

Table 3.3.1-1 (page 1 of 7)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NOMINAL TRIP SETPOINT (1)
1. Manual Reactor Trip	1,2	2	B	SR 3.3.1.14	NA	NA
	3(a), 4(a), 5(a)	2	C	SR 3.3.1.14	NA	NA
2. Power Range Neutron Flux						
a. High	1,2	4	D	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.7 SR 3.3.1.11	≤ 110.93% RTP	108% RTP (2)
b. Low	1(b), 2	4	E	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11	≤ 26.93% RTP	24% RTP
3. Intermediate Range Neutron Flux	1(b), 2(c)	2	F, G	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11	≤ 36.40% RTP	25% RTP
	2(d)	2	H	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11	≤ 36.40% RTP	25% RTP
4. Source Range Neutron Flux	2(d)	2	I, J	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11	≤ 1.28 E5 cps	1.0 E5 cps
	3(a), 4(a), 5(a)	2	J, K	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.11	≤ 1.28 E5 cps	1.0 E5 cps
	3(e), 4(e), 5(e)	1	L	SR 3.3.1.1 SR 3.3.1.11	N/A	N/A

(continued)

- (1) A channel is OPERABLE with an actual Trip Setpoint value found outside its calibration tolerance band provided the Trip Setpoint value is conservative with respect to its associated Allowable Value and the channel is re-adjusted to within the established calibration tolerance band of the Nominal Trip Setpoint.
- (2) The Nominal Trip Setpoint is as stated unless reduced as required by one or more of the following requirements: LCO 3.2.1 Required Action A.2.2; LCO 3.2.2 Required Action A.1.2.2; or LCO 3.7.1 Required Action B.2.
 - (a) With Rod Control System capable of rod withdrawal, or one or more rods not fully inserted.
 - (b) Below the P-10 (Power Range Neutron Flux) interlock.
 - (c) Above the P-6 (Intermediate Range Neutron Flux) interlock.
 - (d) Below the P-6 (Intermediate Range Neutron Flux) interlock.
 - (e) With the RTBs open. In this condition, source range Function does not provide reactor trip but does provide indication and alarm.

Table 3.3.1-1 (page 4 of 7)
Reactor Protection System Instrumentation

FUNCTION		APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NOMINAL TRIP SETPOINT (1)
14.	SG Water Level - Low	1,2	2 per SG	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≥ 29.36%	30%
	Coincident with Steam Flow/Feedwater Flow Mismatch	1,2	2 per SG	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≤ 7.01 E5 lbm/hr	6.4 E5 lbm/hr
15.	Turbine Trip						
	a. Low Auto Stop Oil Pressure	1(f)	3	P	SR 3.3.1.10 SR 3.3.1.15	≥ 40.87 psig	45 psig
	b. Turbine Stop Valve Closure	1(f)	2	P	SR 3.3.1.15	NA	NA
16.	Safety Injection (SI) Input from Engineered Safety Feature Actuation System (ESFAS)	1,2	2 trains	Q	SR 3.3.1.14	NA	NA

(continued)

- (1) A channel is OPERABLE with an actual Trip Setpoint value found outside its calibration tolerance band provided the Trip Setpoint value is conservative with respect to its associated Allowable Value and the channel is re-adjusted to within the established calibration tolerance band of the Nominal Trip Setpoint.
- (f) Above the P-7 (Low Power Reactor Trips Block) interlock.

Table 3.3.1-1 (page 5 of 7)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NOMINAL TRIP SETPOINT (1)
17. Reactor Protection System Interlocks						
a. Intermediate Range Neutron Flux, P-6	2(d)	2	S	SR 3.3.1.11 SR 3.3.1.13	≥ 9.34 E-11 amp	1 E-10 amp
b. Low Power Reactor Trips Block, P-7	1	1 per train	T	SR 3.3.1.13 SR 3.3.1.14	NA	NA
c. Power Range Neutron Flux, P-8	1	4	T	SR 3.3.1.11 SR 3.3.1.13	≤ 42.94% RTP	40% RTP
d. Power Range Neutron Flux, P-10	1,2	4	S	SR 3.3.1.11 SR 3.3.1.13	≥ 7.06% RTP and ≤ 12.94% RTP	10% RTP
e. Turbine Impulse Pressure, P-7 input	1	2	T	SR 3.3.1.1 SR 3.3.1.10 SR 3.3.1.13	≤ 10.71% turbine power	10% turbine power
18. Reactor Trip Breakers ⁽ⁱ⁾	1,2 3(a), 4(a), 5(a)	2 trains 2 trains	R,V C,V	SR 3.3.1.4 SR 3.3.1.4	NA NA	NA NA
19. Reactor Trip Breaker Undervoltage and Shunt Trip Mechanisms	1,2 3(a), 4(a), 5(a)	1 each per RTB 1 each per RTB	U C	SR 3.3.1.4 SR 3.3.1.4	NA NA	NA NA
20. Automatic Trip Logic	1, 2 3(a), 4(a), 5(a)	2 trains 2 trains	Q,V C,V	SR 3.3.1.5 SR 3.3.1.5	NA NA	NA NA

- (1) A channel is OPERABLE with an actual Trip Setpoint value found outside its calibration tolerance band provided the Trip Setpoint value is conservative with respect to its associated Allowable Value and the channel is re-adjusted to within the established calibration tolerance band of the Nominal Trip Setpoint.
- (a) With Rod Control System capable of rod withdrawal, or one or more rods not fully inserted.
- (d) Below the P-6 (Intermediate Range Neutron Flux) interlock.
- (i) Including any reactor trip bypass breakers that are racked in and closed for bypassing an RTB.
- (j) Not used.