

Exhibit B

Prairie Island Nuclear Generating Plant

License Amendment Request Dated April 5, 1985

Proposed Changes to the Technical Specifications
Appendix A of Operating Licenses DPR-42 and 60

Exhibit B consists of revised pages of Appendix A Technical Specifications
as listed below:

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TABLE TS.3.5-2

INSTRUMENT OPERATING CONDITIONS FOR REACTOR TRIP
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FUNCTIONAL UNIT	1 MINIMUM OPERABLE CHANNELS	2 MINIMUM DEGREE OF REDUNDANCY	3 PERMISSIBLE BYPASS CONDITIONS ⁽¹⁾	4 OPERATOR ACTION IF CONDITIONS OF COLUMN 1 OR 2 CANNOT BE MET
1. Manual	2	1		Notes 3, 4
2. Nuclear Flux Power Range*				
low setting	3	2	2 of 4 power	Maintain hot shutdown
high setting	3	2	range channels	
positive rate	3	2	greater than	
negative rate	3	2	10% F.P. (low setting only)	
3. Nuclear Flux Intermediate Range	2	1	2 of 4 power range channels greater than 10% F.P.	Maintain hot shutdown Note 2
4. Nuclear Flux Source Range	2	1	1 of 2 inter- mediate range channels greater than 10^{-16} amps	Maintain hot shutdown Note 2
5. Overtemperature ΔT	3	2		Maintain hot shutdown
6. Overpower ΔT	3	2		Maintain hot shutdown
7. Low Pressurizer Pressure	3	2		Maintain hot shutdown
8. Hi Pressurizer Pressure	2	1		Maintain hot shutdown
9. Pressurizer-Hi Water Level	2	1		Maintain hot shutdown
10. Low Flow in one loop (>10% F.P.)	2/loop	1/loop		Maintain hot shutdown
Low Flow both loops (>10% F.P.)	2/loop	1/loop		

TABLE TS.3.5-2

INSTRUMENT OPERATING CONDITIONS FOR REACTOR TRIP
(Page 2 of 2)

FUNCTIONAL UNIT	1 MINIMUM OPERABLE CHANNELS	2 MINIMUM DEGREE OF REDUNDANCY	3 PERMISSIBLE BYPASS CONDITIONS ⁽¹⁾	4 OPERATOR ACTION IF CONDITIONS OF COLUMN 1 OR 2 CANNOT BE MET
11. Turbine Trip (Overspeed Protection)	2	1		Maintain <50% of rated power
12. Lo-Lo Steam Generator Water Level	2/loop	1/loop		Maintain hot shutdown
13. Undervoltage 4KV RCP Bus	1/bus	1/bus		Maintain hot shutdown
14. Underfrequency 4KV Bus	1/bus	1/bus		Maintain hot shutdown
15. Control Rod Misalignment Monitor				
a. Rod position deviation	1	-		Log data required by
b. Quadrant power tilt	1	-		TS.3.10 I and TS. 3.10 J
16. RCP Breakers Open	2	1		Maintain hot shutdown
17. Safety Injection Actuation Signal	2	1		Maintain hot shutdown
18. Lo Feedwater Flow	1/loop	1/loop		Maintain hot shutdown
19. Automatic Trip Logic including Reactor Trip Breakers **	2	1		Notes 3, 4

Note 1: Automatic permissives not listed

Note 2: When bypass condition exists, maintain normal operation

Note 3: With the number of operable channels one less than the minimum operable channels requirement, be in at least hot shutdown within 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.1, provided the other channel is operable.

Note 4: When in the hot shutdown condition with the number of operable channels one less than the minimum operable channels requirement, restore the inoperable channel to operable status within 48 hours or open the reactor trip breakers within the next hour.

F.P. = Full Power

* = One additional channel may be taken out of service for low power physics testing

** = Includes both undervoltage and shunt trip circuits and if either circuit becomes inoperable the respective channel shall be considered inoperable.

TABLE TS.4.1-1
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MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND
TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Functional Test</u>	<u>Response Test</u>	<u>Remarks</u>
1. Nuclear Power Range	S(1) M(4)	D(2) Q(4)	M(3) M(5) M(6) P(7)	R	1) Once/shift when in service 2) Heat balance 3) Signal to ΔT : bistable action (permissive, rod stop, trips), with the exception of the items covered in Remark #7. 4) Upper and lower chambers for axial off-set using in-core detectors 5) Simulated signal for testing positive and negative rate bistable action 6) Quadrant Power Tilt Monitor 7) P8 and P10 permissives and the 25% High Flux Low Setpoint Trip.
2. Nuclear Inter- mediate Range	*S(1)	NA	T(2)	R	1) Once/shift when in service 2) Log Level; bistable action (permissive, rod stop, trips)
3. Nuclear Source Range	*S(1)	NA	T(2)	R	1) Once/shift when in service 2) Bistable action (alarm, trips)
4. Reactor Coolant Temperature	S(1,2)	R(1,2,3)	M(1) M(2) T(3)	R(1) R(2)	1) Overtemperature ΔT 2) Overpower ΔT 3) Control Rod Bank Insertion Limit Monitor
5. Reactor Coolant Flow	S	R	M	NA	
6. Pressurizer Water Level	S	R	M	NA	
7. Pressurizer Pressure	S	R	M	NA	

TABLE TS.4.1-1
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MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND
TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Functional Test</u>	<u>Response Test</u>	<u>Remarks</u>
8. 4KV Voltage & Frequency	NA	R	M	NA	Reactor protection circuits only
8a. RCP Breakers	NA	R	T	NA	
9. Analog Rod Position	S(1) M(2)	R	T(2)	NA	1) With step counters 2) Rod Position Deviation Monitor Tested by updating computer bank count and comparing with analog rod position test signal
10. Rod Position Bank Counters	S(1,2) M(3)	NA	T(3)	NA	1) With analog rod position 2) Following rod motion in excess of six inches when the computer is out of service 3) Control rod banks insertion limit monitor and control rod position deviation monitors
11. Steam Generator Level	S	R	M	NA	
12. Steam Generator Flow Mismatch	S	R	M	NA	
13. Charging Flow	S	R	NA	NA	
14. Residual Heat Removal Pump Flow	S(1)	R	NA	NA	1) When in operation
15. Boric Acid Tank Level	D	R(1)	M(1)	NA	1) Transfer logic to Refueling Water Storage Tank

TABLE TS.4.1-1
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MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND
TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Functional Test</u>	<u>Response Test</u>	<u>Remarks</u>
16. Refueling Water Storage Tank Level	W	R	M(1)	NA	1) Functional test can be performed by bleeding transmitter
17. Volume Control Tank	S	R	NA	NA	
18a. Containment Pressure SI Signal	S	R	M(1)	NA	Wide Range Containment Pressure 1) Isolation Valve Signal
18b. Containment Pressure Steam Line Isolation	S	R	M	NA	Narrow Range Containment Pressure
18c. Containment Pressure Containment Spray	S	R	M	NA	
18d. Annulus Pressure (Vacuum Breaker)	NA	R	R	NA	
19. Auto Load Sequencers	NA	NA	M	NA	
20. Boric Acid Make-up Flow Channel	NA	R	NA	NA	
21. Containment Sump Level	NA	R	R	NA	Includes Sumps A, B, and C
22. Accumulator Level and Pressure	S	R	R	NA	
23. Steam Generator Pressure	S	R	M	NA	
24. Turbine First Stage Pressure	S	R	M	NA	
25. Emergency Plan Radiation Instruments	*M	R	M	NA	Includes those named in the emergency procedure (referenced in Spec. 6.5 A.6.)
26a. Protection Systems Logic Channel Testing	NA	NA	M	NA	Includes reactor trip logic for both the undervoltage and shunt trips

TABLE TS.4.1-1
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MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND
TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Functional Test</u>	<u>Response Test</u>	<u>Remarks</u>
26b. Reactor Trip Breakers	NA	NA	M(1)	R(2)	(1) Includes independent testing of both undervoltage and shunt trip attachment of the reactor trip breakers. (2) Automatically trip the undervoltage trip attachment.
26c. Manual Reactor Trip	NA	NA	R	NA	Includes independent testing of both undervoltage and shunt trip circuits. The test shall also verify the operability of the bypass breaker.
26d. Reactor Trip Bypass Breaker	NA	NA	M(1)	R(2)	(1) Manually trip the undervoltage trip attachment remotely (ie from the protection system racks). (2) Automatically trip the undervoltage trip attachment
27. Turbine Overspeed Protection Trip Channel	NA	R	M	NA	
28. Deleted					
29. Deleted					
30. Deleted					
31. Seismic Monitors	R	R	NA	NA	
32. Coolant Flow - RTD Bypass Flowmeter	S	R	M	NA	
33. CRDM Cooling Shroud	S	NA	R	NA	FSAR page 3.2-56
34. Reactor Gap Exhaust Air Temperature	S	NA	R	NA	

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MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND
TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Functional Test</u>	<u>Response Test</u>	<u>Remarks</u>
35a. Post-Accident Monitoring Instruments	M	R	NA	NA	Includes all those in Table TS.3.15-1 (except for contain- ment hydrogen monitors which are separately specified in this table)
b. Post-Accident Monitoring Radiation Instruments	D	R	M	NA	Includes all those in Table TS.3.15-2
36. Steam Exclusion Actuation System	W	Y	M	NA	See FSAR Appendix I, Section I.14.6
37. Overpressure Mitigation System	NA	R	R	NA	Instrument Channels for PORV Control Including Overpressure Mitigation System
38. Degraded Voltage 4KV Safeguard Busses	NA	R	M	NA	
39. Loss of Voltage 4KV Safeguard Busses	NA	R	M	NA	
40. Auxiliary Feedwater Pump Suction Pressure	NA	R	R	NA	
41. Auxiliary Feedwater Pump Discharge Pressure	NA	R	R	NA	
42. NaOH Caustic Stand Pipe Level	W	R	M	NA	
43. Control Room Ventilation System Chlorine Monitors	S	Y	M(1)	NA	

TABLE TS.4.1-1
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MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND
TEST OF INSTRUMENT CHANNELS

<u>Channel</u> <u>Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Functional</u> <u>Test</u>	<u>Response</u> <u>Test</u>	<u>Remarks</u>
44. Hydrogen Monitors	S	Q(2)	M	NA	
45. Containment Temperature Monitors	M	R	NA	NA	

S - Shift
 D - Daily
 W - Weekly
 M - Monthly
 Q - Quarterly
 P - Prior to each startup if not done previous week
 T - Prior to each startup following shutdown in excess of 2 days if not done in the previous 30 days

Y - Yearly
 R - Each refueling shutdown
 NA - Not applicable
 * - See Specification 4.1.D

- (1) Verification of the chlorine monitor control logic only.
 (2) Test will be conducted per manufacturer's recommendations.

MINIMUM FREQUENCIES FOR EQUIPMENT TESTS

	<u>Test</u>	<u>Frequency</u>	<u>FSAR Section Reference</u>
1. Control Rod Assemblies	Rod drop times of full length rods	All rods during each refueling shutdown or following each removal of the reactor vessel head; affected rods following maintenance on or modification to the control rod drive system which could affect performance of those specific rods	7
2. Control Rod Assemblies	Partial movement of all rods	Every 2 weeks	7
3. Pressurizer Safety Valves	Set point	Per ASME Code, Section XI Inservice Testing Program	-
4. Main Steam Safety Valves	Set point	Per ASME Code, Section XI Inservice Testing Program	-
5. Reactor Cavity	Water level	Prior to moving fuel assemblies or control rods and at least once every day while the cavity is flooded.	-
6. Pressurizer PORV Block Valves	Functional	Quarterly	-
7. Pressurizer PORV's	Functional	Every 18 months	-
8. Deleted			
9. Primary System Leakage	Evaluate	Daily	4
10. Deleted			
11. Turbine stop valves, governor valves, and intercept valves. (Part of turbine overspeed protection.)	Functional	Monthly ⁽¹⁾	10
12. Deleted			

(1) This test may be waived for end of cycle operations when boron concentrations are less than 150 ppm provided more than 60 days do not elapse following the last test.