

TABLE 15.4.1-1 (1 of 4)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

No.	Channel Description	Check	Calibrate	Test	Remarks
1.	Nuclear Power Range	S(1)** M*(3)**(4)	D(1)** Q*(3)**(4)	M(2)**	(1) Heat Balance (2) Signal to ΔT ; bistable action (permissive, rod stops, trips) (3) Upper and lower chambers for axial off-set (4) Compare incore to excore axial flux difference. Recalibrate if the absolute difference is greater than or equal to 3 percent.
2.	Nuclear Intermediate Range	S(1)**	N.A.	P(2)	(1) Once/shift when in service (2) Log level; bistable action (permissive, rod stop, trips)
3.	Nuclear Source Range	S(1)	N.A.	P(2)	(1) Once/shift when in service (2) Bistable action (alarm, trips)
4.	Reactor Coolant Temperature	S	R	M(1)** (2)	(1) Overtemperature - ΔT (2) Overpower - ΔT
5.	Reactor Coolant Flow	S**	R	M**	
6.	Pressurizer Water Level	S**	R	M**	
7.	Pressurizer Pressure	S**	R	M**	
8.	4 KV Voltage	N.A.	R	M**	Reactor protection circuits only
9.	Analog Rod Position	S(1)**	R	M**	(1) With step counters

* By means of the moveable incore detector system.

** Not required during periods of refueling shutdown, but must be performed prior to starting up if it has not been performed during the previous surveillance period. Tests of permissive and low power trip bistable setpoints which cannot be done during power operations shall be conducted prior to startup if not done in the previous two weeks.

TABLE 15.4.1-1 (2 of 4)

<u>Channel</u> No. <u>Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Test</u>	<u>Remarks</u>
10. Rod Position Bank Counters	S(1)**	N.A.	N.A.	(1) With analog rod position
11. Steam Generator Level	S**	R	M(1)**	(1) Includes test of logic for reactor trip on low-low level and automatic actuation logic for auxiliary feedwater pumps
12. Steam Generator Flow Mismatch	S**	R	M**	
13. Charging Flow	N.A.	R	N.A.	
14. Residual Heat Removal Pump Flow	N.A.	R	N.A.	
15. Boric Acid Tank Level	D	R	N.A.	
16. Refueling Water Storage Tank Level	N.A.	R	N.A.	
17. Volume Control Tank Level	N.A.	R	N.A.	
18. Reactor Containment Pressure	D	R	M(1)**	(1) Isolation valve signal
19. Radiation Monitoring System	D	R	M	(1) Radioactive Effluent Monitoring Instrumentation Surveillance Requirements are specified in 15.7.4.
20. Boric Acid Control	N.A.	R	N.A.	
21. Containment Water Level	M	R	N.A.	
22. Turbine Overspeed Trip*	N.A.	R	M(1)**	(1) Block trip
23. Accumulator Level and Pressure	S	R	N.A.	

* Overspeed Trip Mechanism, and Independent Turbine Speed Detection and Valve Trip System

** Not required during periods of refueling shutdown, but must be performed prior to starting up if it has not been performed during the previous surveillance period.

Unit 1 Amendment No.

Unit 2 Amendment No.