

ATTACHMENT II

To

Letter from C. R. Steinhardt (WPSC) to Document Control Desk (NRC)

Dated

September 10, 1992

Proposed TS Amendment No. 116

Table TS 4.1-1

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TABLE TS 4.1-1

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
1. Nuclear Power Range	Each shift(a) Effective Full Power Month(c)	Daily(a) Effective Full Power Quarter(c)	Monthly(b) Quarterly(d)	(a) Heat balance (b) Signal to ΔT ; bistable action (permissive, rod stop, trips) (c) Upper and lower chambers for axial off-set using incore detectors. The check and calibration for axial offset shall also be performed prior to > 75% power following any core alteration. (d) Permissives P8 and P10 and the 25% reactor trip are tested quarterly.
2. Nuclear Intermediate Range	Each shift(a)*	Not applicable	Prior to each startup if not done previous week(b)	(a) Once/shift when in service (b) Log level; bistable action (permissive, rod stop, trips)
3. Nuclear Source Range	Each shift(a)*	Not applicable	Prior to each startup if not done previous week(b)	(a) Once/shift when in service (b) Bistable action (alarm, trips)
4. Reactor Coolant Temperature	Each shift*	Each refueling cycle not to exceed 18 months	Monthly(a) Monthly(b)	(a) Overtemperature ΔT (b) Overpower ΔT
5. Reactor Coolant Flow	Each shift	Each refueling cycle not to exceed 18 months(a)	Monthly	(a) Only if test indicates calibration required

* Reference TS 4.1.d

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MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
6. Pressurizer Water Level	Each shift	Each refueling cycle not to exceed 18 months(a)	Monthly	(a) Only if test indicates calibration required
7. Pressurizer Pressure	Each shift	Each refueling cycle not to exceed 18 months(a)	Monthly	(a) Only if test indicates calibration required
8. a. 4-KV Voltage and Frequency	Not applicable	Each refueling cycle not to exceed 18 months	Monthly	Reactor protection circuits only
b. 4-KV Voltage (Loss of Voltage)	Not applicable	Each refueling cycle not to exceed 18 months	Monthly	Safeguards buses only
c. 4-KV Voltage (Degraded Grid)	Not applicable	Each refueling cycle not to exceed 18 months	Each refueling cycle not to exceed 18 months	Safeguards buses only
9. Analog Rod Position	Each shift(a)(b)	Each refueling cycle not to exceed 18 months(c)	Each refueling cycle not to exceed 18 months	(a) With step counters (b) Following rod motion in excess of 24 steps when computer is out of service (c) Only if test indicates calibration required

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MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
10. Rod Position Bank Counters	Each shift(a)(b)	Not applicable	Each refueling cycle not to exceed 18 months	(a) With analog rod position (b) Following rod motion in excess of 24 steps when computer is out of service
11. Steam Generator Level	Each shift	Each refueling cycle not to exceed 18 months(a)	Monthly	(a) Only if test indicates calibration required
12. Steam Generator Flow Mismatch	Each shift	Each refueling cycle not to exceed 18 months(a)	Monthly	(a) Only if test indicates calibration required
13. Charging Flow	Each shift	Each refueling cycle not to exceed 18 months	Not applicable	
14. Residual Heat Removal Pump Flow	Each shift (when in operation)	Each refueling cycle not to exceed 18 months	Not applicable	
15. Boric Acid Tank Level	Daily	Each refueling cycle not to exceed 18 months	Monthly	
16. Refueling Water Storage Tank Level	Weekly	Annually	Not applicable	

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MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
17. Volume Control Tank Level	Each shift	Each refueling cycle not to exceed 18 months	Not applicable	
18. a. Containment Pressure (SIS signal)	Each shift	Each refueling cycle not to exceed 18 months(b)	Monthly(a)	(a) Isolation Valve Signal (b) Only if test indicates calibration required
b. Containment Pressure (Steamline Isolation)	Each shift(a)	Each refueling cycle not to exceed 18 months(a)(b)	Monthly(a)	(a) Narrow range containment pressure (-3.0, +3.0 psig excluded) (b) Only if test indicates calibration required
c. Containment Pressure (Containment Spray Act)	Each shift	Each refueling cycle not to exceed 18 months(a)	Monthly	(a) Only if test indicates calibration required
d. Annulus Pressure (Vacuum Breaker)	Not applicable	Each refueling cycle not to exceed 18 months(a)	Each refueling cycle not to exceed 18 months	(a) Only if test indicates calibration required
19. Radiation Monitoring System	Daily*	Each refueling cycle not to exceed 18 months	Monthly	Includes only channels R11 thru R15, R19, R21, and R23
20. Boric Acid Make-Up Flow Channel	Not applicable	Each refueling cycle not to exceed 18 months	Not applicable	

* Reference TS 4.1.d

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MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
21. Containment Sump Level	Not applicable	Not applicable	Each refueling cycle not to exceed 18 months	
22. Accumulator Level and Pressure	Each shift	Each refueling cycle not to exceed 18 months	Not applicable	
23. Steam Generator Pressure	Each shift	Each refueling cycle not to exceed 18 months	Monthly	
24. Turbine First Stage Pressure	Each shift	Annually(a)	Monthly	(a) Only if test indicates calibration required
25. Portable Radiation Survey Instruments	Monthly*	Annually	Quarterly	
26. Protective System Logic Channel Testing	Not applicable	Not applicable	Monthly	Includes auto load sequencer
27. Deleted				

* Reference TS 4.1.d

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CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
28. Turbine Overspeed Protection				
a. Electro- Hydraulic System	Not applicable	Not applicable	Each refueling cycle not to exceed 18 months	
b. Mechanical System	Not applicable	Each refueling cycle not to exceed 18 months(a)	Monthly	(a) A calibration check is performed for the Mechanical System once per refueling cycle; repairs are made if necessary
c. Redundant Overspeed Trip System	Not applicable	Each refueling cycle not to exceed 18 months	Monthly	
29. Seismic Monitoring System	Each refueling cycle not to exceed 18 months	Each refueling cycle not to exceed 18 months	Not applicable	
30. Fore Bay Water Level	Not applicable	Each refueling cycle not to exceed 18 months(a)	Each refueling cycle not to exceed 18 months	(a) Only if test indicates calibration required
31. AFW Flow Rate	(a)	Each refueling cycle not to exceed 18 months	Not applicable	(a) Flow rate indication will be checked at each unit startup and shutdown

* Reference TS 4.1.d

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CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
32. PORV Position Indication	Monthly	Each refueling cycle not to exceed 18 months	Not applicable	
a. Back-up (Temperature)	Monthly	Each refueling cycle not to exceed 18 months	Not applicable	
33. PORV Block Valve Position Indicator	Monthly	Each refueling cycle not to exceed 18 months	Not applicable	
34. Safety Valve Position Indicator (Acoustic)	Monthly	Each refueling cycle not to exceed 18 months	Not applicable	
a. Back-up (Temperature)	Monthly	Each refueling cycle not to exceed 18 months	Not applicable	
35. FW Pump Trip (AFW Initiation)	Not applicable	Not applicable	Each refueling cycle not to exceed 18 months	
36. Reactor Coolant System Subcooling Monitor	Monthly	Each refueling cycle not to exceed 18 months(a)	Each refueling cycle not to exceed 18 months	(a) Only if test indicates calibration required

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CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
37. Containment Pressure (Wide Range)	Daily	Each refueling cycle not to exceed 18 months	Not applicable	
38. Containment Hydrogen Monitors	Daily	Each refueling cycle not to exceed 18 months	Monthly	
39. Containment Water Level (Wide Range)	Not applicable	Not applicable	Each refueling cycle not to exceed 18 months	