

TABLE 4.1-1 (Continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibration</u>	<u>Test</u>	<u>Remarks</u>
32. Loss of Power				
a. 480 Emerg. Bus Undervoltage (Loss of Voltage)	N.A.	R	R	
b. 480 Emerg. Bus Undervoltage (Degraded Voltage)	N.A.	R	R	
33. Auxiliary Feedwater Flow**** Indication	M	N.A.	R	
34. Reactor Coolant System** Subcooling Monitor	N	R	N.A.	
35. PORV Position Indicator***	N.A.	N.A.	R	
36. PORV Blocking Valve*** Position indicator	N.A.	N.A.	R	
37. Safety Relief Valve Position*** Indicator	N.A.	N.A.	R	
38. Noble Gas Effluent Monitors*****				
a. Main Steam Line	S	R	R	
b. Main Vent Stack				
High Range	S	R	R	
Mid Range	S	R	R	
Low Range	S	R	R	
c. Spent Fuel Pit - Lower Level				
High Range	S	R	R	
Low Range	S	R	R	

(Notes/Legend - see next page)

TABLE 4.1-1 (Continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

**	Instrumentation for Detection of Inadequate Core Cooling - NUREG 0578 Item 2.1.3.b.
***	Direct Indication of Power Operated Relief Valve and Safety Valve Position - NUREG 0578 Item 2.1.3.a.
****	Auxiliary Feedwater Flow Indication to Steam Generator - NUREG 0578 Item 2.1.7.b.
*****	Noble Gas Effluent Monitors - NUREG 0737 Item II.F.1
S	- At least once per 12 hours
D	- At least once per 24 hours
W	- At least once per 7 days
B/W	- At least once per 14 days
M	- At least once per 31 days
Q	- At least once per 92 days
S/U	- Prior to each reactor startup
R	- At least once per 18 months
N.A.	- Not applicable

TABLE 3.5-5

(THIS TABLE APPLIES WHEN THE RCS IS  $> 350^{\circ}\text{F}$ )INSTRUMENTATION TO FOLLOW THE COURSE OF AN ACCIDENT

NO.	INSTRUMENT	1 MINIMUM CHANNELS OPERABLE	2 OPERATOR ACTION IF CONDITIONS OF COLUMN 1 CANNOT BE MET
1	Pressurizer Level	2	See Item 9 Table 3.5-2
2	Auxiliary Feedwater Flow Indication (Primary Indication)		Note 1
	SD AFW Pump MD AFW Pump	1 per S/G 1 per S/G	
3	Reactor Coolant System Subcooling Monitor	1	Note 2
4	PORV Position Indicator (Primary)	1	Note 3
5	PORV Blocking Valve Position Indicator (Primary)	1	Note 3
6	Safety Valve Position Indicator (Primary)	1	Note 3
7	Noble Gas Effluent Monitors		
	Main Steam Line	1 per steam line	Note 4
	Main Vent Stack		
	High Range	1	Note 4
	Mid Range	1	Note 4
	Low Range	1	Note 4
	Spent Fuel Pit - Lower Level		
	High Range	1	Note 4
	Low Range	1	Note 4

(Notes — see next page)

TABLE 3.5-5 (Continued)

INSTRUMENTATION TO FOLLOW THE COURSE OF AN ACCIDENT

- Note 1: The three AFW lines from the MD AFW pumps and the three AFW lines from the SD AFW pump each contain one primary flow indicator (2 AFW flow paths per steam generator for a total of 6 AFW lines). These primary indicators are backed up by the narrow range steam generator level indications. If one or more of the direct AFW flow indicators becomes inoperable when the RCS is  $> 350^{\circ}\text{F}$ , restore the indicator to an operable status within 7 days, or prepare and submit a special report to the NRC within the following 14 days detailing the cause(s) of the inoperable indicator(s), the actions being taken to restore the indicator(s) to an operating status, the estimated date for completion of the repairs, and any compensatory action being taken while the indicator(s) is inoperable. The action required when any of the back up indications of AFW flow are inoperable, is described in Table 3.5-2.
- Note 2: If both channels of the RCS subcooling monitor become inoperable when the RCS is  $> 350^{\circ}\text{F}$ , restore at least one channel to an operable status within 7 days, or prepare and submit a special report to the NRC within the following 14 days detailing the cause(s) of the inoperable channels, the actions being taken to restore at least one channel to an operable status, the estimated date for completion of the repairs, and any compensatory action being taken while both channels are inoperable.
- Note 3: The Pzr PORVs and Pzr PORV blocking valves both incorporate limit switches for the direct (primary) means of position indication. The back up method of position indication consists of PRT pressure and a temperature element in a common line downstream of the valves. The Pzr safety relief valves incorporate a vibration monitoring system as the primary method of valve position indication. The back up method of position indication consists of a temperature element downstream of each valve and PRT pressure. If the primary method of position indication for either the Pzr PORVs, Pzr PORV blocking valves, or Pzr safety relief valves becomes inoperable when the RCS is  $> 350^{\circ}\text{F}$ , restore the primary method to an operable status within 7 days, or prepare and submit a special report to the NRC within the following 14 days detailing the cause of the inoperable primary position indication method, the actions being taken to restore it to an operable status, the estimated date for completion of the repairs, and any compensatory action being taken while the primary position indication method is inoperable. If any of the back up methods of position indication for these valves becomes inoperable, it is to be repaired as soon as plant conditions permit.
- Note 4: With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, initiate the preplanned alternate method of monitoring the appropriate parameter(s), and either restore the inoperable Channel(s) to OPERABLE status within 7 days, or, prepare and submit a Special Report to the Commission within the next 14 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.