

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
Table 3.3.7.4-1 Remote Shutdown Monitoring Instrumentation	3/4 3-75
Table 3.3.7.4-2 Remote Shutdown Systems Controls	3/4 3-77
Table 4.3.7.4-1 Remote Shutdown Monitoring Instrumentation Surveillance Requirements	3/4 3-82
Accident Monitoring Instrumentation	3/4 3-84
Table 3.3.7.5-1 Accident Monitoring Instrumentation	3/4 3-85
Table 4.3.7.5-1 Accident Monitoring Instrumentation Surveillance Requirements	3/4 3-87
Source Range Monitors	3/4 3-88
3/4.3.8 DELETED	3/4 3-103
3/4.3.9 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION	3/4 3-105
Table 3.3.9-1 Feedwater/Main Turbine Trip System Actuation Instrumentation	3/4 3-106

INDEX

BASES

SECTION

PAGE

INSTRUMENTATION (Continued)

Remote Shutdown Monitoring Instrumentation and Controls	B 3/4 3-5
Accident Monitoring Instrumentation	B 3/4 3-5
Source Range Monitors	B 3/4 3-5
3/4.3.8 DELETED	B 3/4 3-7
3/4.3.9 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION	B 3/4 3-7
Figure B3/4 3-1 Reactor Vessel Water Level	B 3/4 3-8
3/4.3.10 MECHANICAL VACUUM PUMP TRIP INSTRUMENTATION	B 3/4 3-9
3/4.3.11 OSCILLATION POWER RANGE MONITOR	B 3/4 3-13
<u>3/4.4 REACTOR COOLANT SYSTEM</u>	
3/4.4.1 RECIRCULATION SYSTEM	B 3/4 4-1
3/4.4.2 SAFETY/RELIEF VALVES	B 3/4 4-2
3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE	
Leakage Detection Systems	B 3/4 4-3
Operational Leakage	B 3/4 4-3
3/4.4.4 CHEMISTRY	B 3/4 4-3
3/4.4.5 SPECIFIC ACTIVITY	B 3/4 4-4
3/4.4.6 PRESSURE/TEMPERATURE LIMITS	B 3/4 4-5
Table B3/4.4.6-1 Reactor Vessel Toughness	B 3/4 4-7
Figure B3/4.4.6-1 Fast Neutron Fluence (E>1Mev) at (1/4)T as a Function of Service life	B 3/4 4-8
Table B3/4.4.6-2 Numeric Values for Pressure/Temperature Limits	B 3/4 4-9

TABLE 4.3.1.1-1 (Continued)
REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
8. Scram Discharge Volume Water Level - High				
a. Float Switch	NA	Q	R	1, 2, 5(j)
b. Level Transmitter/Trip Unit	S	Q ^(k)	R	1, 2, 5(j)
9. Turbine Stop Valve - Closure	NA	Q	R	1
10. Turbine Control Valve Fast Closure Valve Trip System Oil Pressure - Low	NA	Q	R	1
11. Reactor Mode Switch Shutdown Position	NA	R	NA	1, 2, 3, 4, 5
12. Manual Scram	NA	W	NA	1, 2, 3, 4, 5

(a) Neutron detectors may be excluded from CHANNEL CALIBRATION.

(b) The IRM and SRM channels shall be determined to overlap for at least 1/2 decades during each startup after entering OPERATIONAL CONDITION 2 and the IRM and APRM channels shall be determined to overlap for at least 1/2 decades during each controlled shutdown, if not performed within the previous 7 days.

(c) DELETED

(d) This calibration shall consist of the adjustment of the APRM channel to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER \geq 25% of RATED THERMAL POWER. Adjust the APRM channel if the absolute difference is greater than 2% of RATED THERMAL POWER.

(e) This calibration shall consist of the adjustment of the APRM flow biased channel to conform to a calibrated flow signal.

(f) The LPRMs shall be calibrated at least once per 1000 effective full power hours (EFPH).

(g) Verify measured core flow (total core flow) to be greater than or equal to established core flow at the existing recirculation loop flow (APRM % flow).

(h) This calibration shall consist of verifying the 6 ± 0.6 second simulated thermal power time constant.

(i) This item intentionally blank

(j) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

(k) Verify the tripset point of the trip unit at least once per 92 days.

(l) Not required to be performed when entering OPERATIONAL CONDITION 2 from OPERATIONAL CONDITION 1 until 12 hours after entering OPERATIONAL CONDITION 2.

INSTRUMENTATION

3.3.7.7 DELETED

INSTRUMENTATION

BASES

MONITORING INSTRUMENTATION (Continued)

3/4.3.7.2 DELETED

3/4.3.7.3 DELETED

3/4.3.7.4 REMOTE SHUTDOWN MONITORING INSTRUMENTATION AND CONTROLS

The OPERABILITY of the remote shutdown monitoring instrumentation and controls ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN of the unit from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.3.7.5 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess important variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," December 1980 and NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.

3/4.3.7.6 SOURCE RANGE MONITORS

The source range monitors provide the operator with information of the status of the neutron level in the core at very low power levels during startup and shutdown. At these power levels, reactivity additions shall not be made without this flux level information available to the operator. For a discussion of SPIRAL RELOAD and SPIRAL UNLOAD and the associated flux monitoring requirements, see Technical Specification Bases Section 3/4.9.2. When the intermediate range monitors are on scale, adequate information is available without the SRMs and they can be retracted.

3/4.3.7.7 DELETED