TABLE 3.6.4-1 (Continued)

CONTAINMENT AND DRYWELL ISOLATION VALVES

SYSTEM AND VALVE NUMBER		PENETRATION NUMBER	VALVE GROUP[a]	MAXIMUM ISOLATION TIME (Seconds)
Containment (Continued)				
RHR Heat Exchanger "A" to LPCI	E12-F028A-A	20(I)[c]	5	78
RHR Heat Exchanger "A" to LPCI	E12-F037A-A	20(I)[c]	3	63
RHR Heat Exchanger "B" to LPCI	E12-F042B-B	21(I)[c]	5	22
RHR Heat Exchanger "B" to LPCI	E12-F028B-B	21(I)[c]	5	78
RHR Heat Exchanger "B" to LPCI	E12-F037B-B	21(I)[c]	3	63
RHR "A" Test Line to Supp. Pool	E12-F024A-A	23(O)[d]	5	93
RHR "A" Test Line to Supp. Pool	E12-F011A-A	23(O)[d]	5	27
RHR "A" Test Line to Supp. Pool	E12-F290A-A	23(O)[d]	6	8
RHR "C" Test Line to Supp. Pool	E12-F021B-B	24(O)[d]	5	~~97~~ 101
HPCS Test Line	E22-F023-C	27(O)	6	60
RCIC Pump Suction	E51-F031-A	28(O)	4	38
RCIC Turbine Exhaust	E51-F077-A	29(O)[c]	9	18
LPCS Test Line	E21-F012-A	32(O)	5	101
Cont. Purge and Vent Air Supply	M41-F011	34(O)	7	4
Cont. Purge and Vent Air Supply	M41-F012	34(I)	7	4
Cont. Purge and and Vent Air Exh.	M41-F034	35(I)	7	4
Cont. Purge and and Vent Air Exh.	M41-F035	35(O)	7	4
Plant Service Water Return	P44-F070-B	36(I)	6	24
Plant Service Water Return	P44-F069-A	36(O)	6	24
Plant Service Water Supply	P44-F053-A	37(O)	6	24
Chilled Water Supply	P71-F150	38(O)	6	30
Chilled Water Return	P71-F148	39(O)	6	30

SURVEILLANCE REQUIREMENTS

4.5.1 ECCS division 1, 2 and 3 shall be demonstrated OPERABLE by:

a. At least once per 31 days for the LPCS, LPCI and HPCS systems:

1. Verifying by venting at the high point vents that the system piping from the pump discharge valve to the system isolation valve is filled with water.

2. Performance of a CHANNEL FUNCTIONAL TEST of the:

a) Discharge line "keep filled" pressure alarm instrumentation, and

b) Header delta P instrumentation.

3. Verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. Verifing that, when tested pursuant to Specification 4.0.5, each:

1. LPCS pump develops a flow of at least 7115 gpm against a test line pressure greater than or equal to 128 psid.

2. LPCI pump develops a flow of at least 7450 gpm against a test line pressure greater than or equal to 24 psid.

3. HPCS pump develops a flow of at least 7115 gpm against a test line pressure greater than or equal to 200 psid.

c. For the LPCS, LPCI and HPCS systems, at least once per 18 months:

1. Performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence and verifying that each automatic valve in the flow path actuates to its correct position. Actual injection of coolant into the reactor vessel may be excluded from this test.

2. Performing a CHANNEL CALIBRATION of the:

a) Discharge line "keep filled" pressure alarm instrumentation and verifying the:

1) High pressure setpoint ~~and the low pressure setpoint~~ of the:

(a) LPCS system to be 580 + 20, - 0 psig, ~~and $\geq$ 10 ± 5 psig, respectively.~~

(b) LPCI subsystems to be 480 + 20, - 0 psig, ~~and $\geq$ 10 ± 5 psig, respectively.~~

SURVEILLANCE REQUIREMENTS (Continued)

2) Low pressure setpoint ~~of the HPCS system to be ≥ 30 ± 5 psig.~~

b) Header delta P instrumentation and verifying the setpoint of the HPCS system and LPCS system and LPCI subsystems to be 1.2 ± 0.1 psid change from the normal indicated ΔP.

3. Verifying that the suction for the HPCS system is automatically transferred from the condensate storage tank to the suppression pool on a condensate storage tank low water level signal and on a suppression pool high water level signal.

d. For the ADS at least once per 18 months by:

1. Performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence, but excluding actual valve actuation.

2. Manually opening each ADS valve when the reactor steam dome pressure is greater than or equal to 100 psig* and observing that either:

a) The control valve or bypass valve position responds accordingly, or

b) There is a corresponding change in the measured steam flow.

(i) LPCI 'A' and 'B' subsystem loop . . . ≥ 38 psig,
(ii) LPCI 'C' subsystem loop and LPCS system . . . ≥ 22 psig,
(iii) HPCS system . . . ≥ 18 psig.

*The provisions of Specification 4.0.4 are not applicable provided the surveillance is performed within 12 hours after reactor steam pressure is adequate to perform the test.

TABLE 3.3.8-2

PLANT SYSTEMS ACTUATION INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
1. CONTAINMENT SPRAY SYSTEM		
a. Drywell Pressure-High	≤ 1.89 psig	≤ 1.94 psig
b. Containment Pressure-High	≤ 9 psig	≤ 9.2 psig
c. Reactor Vessel Water Level-Low Low, Level 1	≥ - 150.3 inches (10.3 ± .1)	≥ - 152.5 inches (+1.9, -0)
d. Timers		
1) System A	~~≤ 10~~ minutes	≤ 10 minutes
2) System B	~~≤ 11.5~~ minutes (11.2 ± .2)	≤ 1.5 minutes (+.2, -1.5)
2. FEEDWATER SYSTEM/MAIN TURBINE TRIP SYSTEM		
a. Reactor Vessel Water Level-High, Level 8	≤ 53.5 inches*	≤ 55.7 inches

*See Bases Figure B 3/4 3-1.

TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

480 VAC Molded Case Circuit Breakers (Continued)

3. Type MSCP

BREAKER NUMBER	FUSE TYPE	SYSTEM/COMPONENT AFFECTED
52-12202	MSCP-W	CONTAINMENT COOLING FILTER TRAIN HEATER (N1M41D002B-N)
52-12209	MSCP-~~W~~ Y	CONTAINMENT POLAR CRANE (Q1F13E001-N)
52-11502	MSCP-W	CONTAINMENT CLG FILTER TRAIN HEATER (N1M41D002A-N)
52-15105	MSCP-~~W~~ Y	DRYWELL PURGE COMPRESSOR (Q1E61C001A-A)
52-16204	MSCP-~~W~~ Y	DRYWELL PURGE COMPRESSOR (Q1E61C001B-B)
52-16404	MSCP-W	HYDROGEN RECOMBINER (Q1E61C003B-B)

3/4.4.9 RESIDUAL HEAT REMOVAL

HOT SHUTDOWN

LIMITING CONDITION FOR OPERATION

, unless at least one recirculation pump is in operation,

3.4.9.1 Two[#] shutdown cooling mode loops of the residual heat removal (RHR) system shall be OPERABLE and at least one shutdown cooling mode loop shall be in operation[^,##] with each loop consisting of at least:

a. One OPERABLE RHR pump, and

b. One OPERABLE RHR heat exchanger.

APPLICABILITY: OPERATIONAL CONDITION 3, with reactor vessel pressure less than the RHR cut-in permissive setpoint.

ACTION:

a. With less than the above required RHR shutdown cooling mode loops OPERABLE, immediately initiate corrective action to return the required loops to OPERABLE status as soon as possible. Within one hour and at least once per 24 hours thereafter, demonstrate the operability of at least one alternate method capable of decay heat removal for each inoperable RHR shutdown cooling mode loop. Be in at least COLD SHUTDOWN within 24 hours.[**]

b. With no RHR shutdown cooling mode loop in operation, immediately initiate corrective action to return at least one loop to operation as soon as possible. Within one hour establish reactor coolant circulation by an alternate method and monitor reactor coolant temperature and pressure at least once per hour.

SURVEILLANCE REQUIREMENTS

4.4.9.1 At least one shutdown cooling mode loop of the residual heat removal system or alternate method shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.

[#]One RHR shutdown cooling mode loop may be inoperable for up to 2 hours for surveillance testing provided the other loop is OPERABLE and in operation.

[^]The shutdown cooling pump may be removed from operation for up to 2 hours per 8 hour period provided the other loop is OPERABLE.

[##]The RHR shutdown cooling mode loop may be removed from operation during hydrostatic testing.

[**]Whenever two or more RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

, unless at least one recirculation pump is in operation,

COLD SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.4.9.2 Two[#] shutdown cooling mode loops of the residual heat removal (RHR) system shall be OPERABLE and at least one shutdown cooling mode loop shall be in operation[*,##] with each loop consisting of at least:

a. One OPERABLE RHR pump, and

b. One OPERABLE RHR heat exchanger.

APPLICABILITY: OPERATIONAL CONDITION 4.

ACTION:

a. With less than the above required RHR shutdown cooling mode loops OPERABLE, within one hour and at least once per 24 hours thereafter, demonstrate the operability of at least one alternate method capable of decay heat removal for each inoperable RHR shutdown cooling mode loop.

b. With no RHR shutdown cooling mode loop in operation, within one hour establish reactor coolant circulation by an alternate method and monitor reactor coolant temperature and pressure at least once per hour.

SURVEILLANCE REQUIREMENTS

4.4.9.2 At least one shutdown cooling mode loop of the residual heat removal system or alternate method shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.

[#]One RHR shutdown cooling mode loop may be inoperable for up to 2 hours for surveillance testing provided the other loop is OPERABLE and in operation.

[*]The shutdown cooling pump may be removed from operation for up to 2 hours per 8 hour period provided the other loop is OPERABLE.

[##]The shutdown cooling mode loop may be removed from operation during hydrostatic testing.