INDEX

DEFINITIONS

INDEX

DEFINITIONS

2.0 SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

2.1 SAFETY LIMITS

2.2 LIMITING SAFETY SYSTEM SETTINGS

BASES

2.1 SAFETY LIMITS

BASES

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION

PAGE

INSTRUMENTATION (Continued)

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION PAGE

REACTOR COOLANT SYSTEM (Continued)

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

~~LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS~~

DELETE

This page intentionally left blank

BASES

BASES

INDEX

BASES

SECTION | PAGE

BASES

INDEX

~~BASES~~

SECTION PAGE

~~3/4.12 Deleted~~

DESIGN FEATURES

SECTION PAGE

6.0 ADMINISTRATIVE CONTROLS

CONTAINMENT AND REACTOR VESSEL ISOLATION CONTROL SYSTEM RESPONSE TIME

1.7 The CONTAINMENT AND REACTOR VESSEL ISOLATION AND CONTROL SYSTEM (CRVICS) RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its isolation actuation setpoint at the channel sensor until the isolation valves travel to their required positions. Times shall include diesel generator starting and sequence loading delays where applicable. The response time may be measured by any series of sequential, overlapping or total steps such that the entire response time is measured.

CORE ALTERATION

1.8 CORE ALTERATION shall be the addition, removal, relocation or movement of fuel, sources, or reactivity controls within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Movement, including undervessel replacement, of the SRMs, IRMs, LPRMs, TIPs, or special movable detectors is not considered a CORE ALTERATION. Suspension of CORE ALTERATIONS shall not preclude completion of the movement of a component to a safe conservative position.

CORE OPERATING LIMITS REPORT

1.9 The CORE OPERATING LIMITS REPORT is the Clinton-specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.9.1.9. Plant operation within these operating limits is addressed in individual Specifications.

CRITICAL POWER RATIO

1.10 The CRITICAL POWER RATIO (CPR) shall be the ratio of that power in the assembly which is calculated by application of an approved General Electric Critical Power correlation to cause some point in the assembly to experience boiling transition, divided by the actual assembly operating power.

DOSE EQUIVALENT I-131

1.11 DOSE EQUIVALENT I-131 shall be that concentration of I-131, microcuries per gram, which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites."

DRYWELL INTEGRITY

1.12 DRYWELL INTEGRITY shall exist when:

a. All drywell penetrations required to be closed during accident conditions are either:

    1. Capable of being closed by an OPERABLE drywell automatic isolation system or

    2. Closed by at least one manual valve, blind flange, or deactivated automatic valve secured in its closed position. ~~except as provided in Table 3.6.4-1 of Specification 3.6.4.~~

b. The drywell equipment hatch is closed and sealed.

c. The drywell airlock is OPERABLE pursuant to Specification 3.6.2.3.

PRIMARY CONTAINMENT INTEGRITY

1.31 PRIMARY CONTAINMENT INTEGRITY shall exist when:

a. All containment penetrations required to be closed during accident conditions are either:

   1. Capable of being closed by an OPERABLE containment automatic isolation system or

   2. Closed by at least one manual valve, blind flange, or deactivated automatic valve secured in its closed position, except as provided in ~~Table 3.6.4-1 of~~ Specification 3.6.4.

b. All containment equipment hatches are closed and sealed.

c. Each containment air lock is in compliance with the requirements of Specification 3.6.1.3.

d. The containment leakage rates are within the limits of Specification 3.6.1.2.

e. The suppression pool is in compliance with the requirements of Specification 3.6.3.1.

f. The sealing mechanism associated with each primary containment penetration, e.g., welds, bellows or O-rings, is OPERABLE.

PROCESS CONTROL PROGRAM (PCP)

1.32 The PROCESS CONTROL PROGRAM shall contain the current formula, sampling, analyses, tests, and determinations to be made to ensure that the processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way as to assure compliance with 10 CFR Part 20, 10 CFR Part 61, 10 CFR Part 71 and Federal and State regulations, burial ground requirements and other requirements governing the disposal of the radioactive waste.

PURGE - PURGING

1.33 PURGE or PURGING is the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating condition in such a manner that replacement air or gas is required to purify the confinement.

RATED THERMAL POWER

1.34 RATED THERMAL POWER shall be a total reactor core heat transfer rate to the reactor coolant of 2894 MWt.

REACTOR PROTECTION SYSTEM RESPONSE TIME

1.35 REACTOR PROTECTION SYSTEM RESPONSE TIME shall be the time interval from when the monitored parameter exceeds its trip setpoint at the channel sensor until deenergization of the scram pilot valve solenoids. The response time may be measured by any series of sequential, overlapping or total steps such that the entire response time is measured.

REPORTABLE EVENT

1.36 A REPORTABLE EVENT shall be any of those conditions specified in Section 50.73 to 10 CFR Part 50.

ROD DENSITY

1.37 ROD DENSITY shall be the number of control rod notches inserted as a fraction of the total number of control rod notches. All rods fully inserted are equivalent to 100% ROD DENSITY.

SECONDARY CONTAINMENT INTEGRITY

1.38 SECONDARY CONTAINMENT INTEGRITY shall exist when:

a. All secondary containment penetrations required to be closed during accident conditions are either:

   1. Capable of being closed by an OPERABLE secondary containment automatic isolation system or

   2. Closed by at least one manual valve, blind flange, or deactivated automatic valve or damper as applicable secured in its closed position, except as provided in ~~Table 3.6.6.2-1 of~~ Specification 3.6.6.2.

b. All secondary containment equipment hatches are closed and sealed.

c. The standby gas treatment system is in compliance with the requirements of Specification 3.6.6.3.

d. At least one door in each access to the secondary containment is closed, except for normal entry and exit.

e. The sealing mechanism associated with each secondary containment penetration, e.g., welds, bellows or O-rings, is OPERABLE.

f. The pressure within the secondary containment is less than or equal to the value required by Specification 4.6.6.1.a.

SELF TEST SYSTEM

1.39 The SELF TEST SYSTEM (STS) shall be that automatic test system designed to continually monitor the solid state nuclear system protection system (NSPS) functional circuitry by injecting short-duration pulses into circuits and verifying proper circuit response to various input combinations. The SELF TEST

TABLE 3.3.2-1

CRVICS INSTRUMENTATION

TRIP FUNCTION	ISOLATION SIGNAL (q)	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM	APPLICABLE OPERATIONAL CONDITION	ACTION
1. PRIMARY AND SECONDARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level-Low Low, Level 2	B[b][f]	2[a]	1, 2, 3 #	20 25
b. Reactor Vessel Water Level-Low Low, Level 2 (ECCS Div. I and II)	B	2[a]	1, 2, 3	29
c. Reactor Vessel Water Level-Low, Low, Level 2 (HPCS-NSPS Div. III and IV)	B	2[a][m]	1, 2, 3	29
d. Drywell Pressure - High	L[b][f]	2[a]	1, 2, 3	20
e. Drywell Pressure - High (ECCS Div. I and II)	L	2[a]	1, 2, 3	29
f. Drywell Pressure - High (HPCS-NSPS Div. III and IV)	L	2[a][n]	1, 2, 3	29
g. Containment Building Fuel Transfer Pool Ventilation Plenum Radiation - High	Z[b][f]	2[a]	##	25
h. Containment Building Exhaust Radiation - High				
1) Outboard (Div. I) Valve Isolation	M[b][f]	2[a][o]	1, 2, 3 #	29 25
2) Inboard (Div. II) Valve Isolation	M[b][f]	2[a][o]	1, 2, 3 #	29 25
i. Containment Building Continuous Containment Purge (CCP) Exhaust Radiation - High	S[b][f]	2[a]	1, 2, 3 #	29 25
j. Reactor Vessel Water Level-Low Low Low, Level 1	U	2[k]	1, 2, 3 #	29 25
k. Containment Pressure-High	P	1[k][l]	1, 2, 3 #	29 25

TABLE 3.3.2-1 (Continued)

CRVICS INSTRUMENTATION

TRIP FUNCTION	ISOLATION SIGNAL	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM	APPLICABLE OPERATIONAL CONDITION	ACTION
l. Main Steam Line Radiation - High	C	2(a)	1, 2, 3	23
m. Fuel Building Exhaust Radiation - High	(b)(f)(j)	2(a)	1, 2, 3 \#	25 25
n. Manual Initiation	R(b)(f)	1	1, 2, 3 \#	26 25

2. MAIN STEAM LINE ISOLATION †	ISOLATION SIGNAL	APPLICABLE TABLE NOTES	APPLICABLE OPERATIONAL CONDITIONS	ACTION
a. Reactor Vessel Water Level-Low Low Low, Level 1	U	NA	1, 2, 3	20
b. Main Steam Line Radiation - High	C	d	1, 2, 3	23
c. Main Steam Line Pressure - Low	H	NA	1	23
d. Main Steam Line Flow - High	D	NA	1, 2, 3	23
e. Condenser Vacuum - Low	J	NA	1, 2**, 3**	23
f. Main Steam Line Tunnel Temp. - High	E	NA	1, 2, 3	23
g. Main Steam Line Tunnel Δ Temp. - High	F	NA	1, 2, 3	23
h. Main Steam Line Turbine Bldg. Temp. - High	G	p	1, 2, 3	23
i. Manual Initiation	R	NA	1, 2, 3	22

TABLE 3.3.2-1 (Continued)

CRVICS INSTRUMENTATION

TRIP FUNCTION	ISOLATION SIGNAL (g)	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM	APPLICABLE OPERATIONAL CONDITION	ACTION
3. REACTOR WATER CLEANUP SYSTEM ISOLATION				
a. Δ Flow - High	1	$1^{(k)}$	1, 2, 3	27
b. Δ Flow Timer	X	$1^{(k)}$	1, 2, 3	27
c. Equipment Area Temp. - High				
1. Pump Rooms - A, B, C	N	$1/room^{(k)}$	1, 2, 3	27
2. Heat Exchanger Rooms - East, West	N	$1/room^{(k)}$	1, 2, 3	27
d. Equipment Area Δ Temp. - High				
1. Pump Rooms - A, B, C	2	$1/room^{(k)}$	1, 2, 3	27
2. Heat Exchanger Rooms - East, West	2	$1/room^{(k)}$	1, 2, 3	27
e. Reactor Vessel Water Level - Low Low, Level 2	B	$2^{(k)}$	1, 2, 3 #	29 25
f. Main Steam Line Tunnel Ambient Temp. - High	E	$1^{(k)}$	1, 2, 3	27
g. Main Steam Line Tunnel ΔTemp. - High	F	$1^{(k)}$	1, 2, 3	27
h. SLCS Initiation(e)	X	1	1, 2, 5*	27
i. Manual Initiation(g)	R	1	1, 2, 3 #	26 25
4. REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION				
a. RCIC Steam Line Flow - High	V	$1^{(k)}$	1, 2, 3	27
b. RCIC Steam Line Flow - High Timer	X	$1^{(k)}$	1, 2, 3	27
c. RCIC Steam Supply Pressure - Low	$V^{(h)}$	$1^{(k)}$	1, 2, 3	27
d. RCIC Turbine Exhaust Diaphragm Pressure - High	V	$2^{(k)}$	1, 2, 3	27

TABLE 3.3.2-1 (Continued)

CRVICS INSTRUMENTATION

TRIP FUNCTION	ISOLATION SIGNAL (a)	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM	APPLICABLE OPERATIONAL CONDITION	ACTION
4. REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION (Continued)				
e. RCIC Equipment Room Ambient Temp. - High	V	1(k)	1, 2, 3	27
f. RCIC Equipment Room Δ Temp. - High	V	1(k)	1, 2, 3	27
g. Main Steam Line Tunnel Ambient Temp. - High	E	1(k)	1, 2, 3	27
h. Main Steam Line Tunnel Δ Temp. - High	F	1(k)	1, 2, 3	27
i. Main Steam Line Tunnel Temperature Timer	X	1(k)	1, 2, 3	27
j. Drywell Pressure - High	L(h)	1(k)	1, 2, 3	27
k. Manual Initiation	R	1(i)	1, 2, 3	26
l. RHR/RCIC Steam Line Flow - High	V	1(k)	1, 2, 3	27
m. RHR Heat Exchanger A, B Ambient Temperature - High	T	1/room(k)	1, 2, 3	28
n. RHR Heat Exchanger A, B Δ Temp. - High	S	1/room(k)	1, 2, 3	28

TABLE 3.3.2-1 (Continued)

CRVICS INSTRUMENTATION

TRIP FUNCTION	ISOLATION SIGNAL (a)	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM	APPLICABLE OPERATIONAL CONDITION	ACTION
5. RHR SYSTEM ISOLATION				
a. RHR Heat Exchanger A, B Ambient Temperature - High	T	1/room(k)	1, 2, 3	28
b. RHR Heat Exchanger A, B ΔTemp. - High	S	1/room(k)	1, 2, 3	28
c. Reactor Vessel Water Level - Low, Level 3	A	2(a)	1, 2, 3	28
d. Reactor Vessel Water Level - Low Low Low, Level 1	U	2(k)	1, 2, 3	28
e. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	X	2(a)	1, 2, 3	28
f. Drywell Pressure - High				
1) RHR Test Lines	L	2(k)	1, 2, 3	28
2) Fuel Pool Cooling	L	2(a)	1, 2, 3	28
g. Manual Initiation	R	1	1, 2, 3	26

TABLE 3.3.2-1 (Continued)
CRVICS INSTRUMENTATION

TABLE NOTATIONS

When handling irradiated fuel in the primary or secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

When handling irradiated fuel in the primary containment (building) and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

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

** When any turbine stop valve is greater than 95% open or the reactor mode switch is in the run position.

† Main steam line isolation trip functions have 2-out-of-4 isolation logic except for the main steam line flow - high trip function which has 2-out-of-4 isolation logic for each main steam line.

~~†† See Specification 3.6.4 Table 3.6.4-1 for valves which are actuated by these isolation signals.~~

(a) A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter.

(b) Also actuates the standby gas treatment system.

(c) Deleted

(d) Also trips and isolates the mechanical vacuum pumps.

(e) Isolates RWCU valves 1G33-F001 and 1G33-F004 only.

(f) Also actuates secondary containment ventilation isolation dampers ~~per Table 3.6.6.2-1.~~

(g) Manual Switch closes RWCU system inboard isolation valves F001, F028, F053, F040 and outboard isolation valves F004, F039, F034 and F054.

(h) Vacuum breaker isolation valves require RCIC system steam supply pressure low coincident with drywell pressure high for isolation of vacuum breaker isolation valves.

(i) A single manual isolation switch isolates outboard steam supply line isolation valve (F064) and the RCIC pump suction from suppression pool valve (F031) only following a manual or automatic (Reactor Vessel Water Level 2) RCIC system initiation.

(j) Only actuates secondary containment ventilation isolation dampers ~~per Table 3.6.6.2-1. Note †† is not applicable to this Trip Function.~~

(k) A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the trip system in the trip condition provided that the redundant trip system is OPERABLE and monitoring that parameter.

(l) Not required to be OPERABLE when valves 1VR002A,B and 1VQ006A,B are sealed closed in accordance with Specification 3.6.4.

TABLE 3.3.2-1 (Continued)
CRVICS INSTRUMENTATION

TABLE NOTATIONS

(m) Four reactor vessel water level trip channels are logically combined in a one-out-of-two-twice configuration. For the purposes of the associated ACTION, each one-out-of-two logic is defined as a separate trip system.

(n) Four drywell pressure trip channels are logically combined in a one-out-of-two-twice configuration. For the purposes of the associated ACTION, each one-out-of-two logic is defined as a separate trip system.

(o) One trip system is associated with the A and B monitors; the other trip system is associated with the C and D monitors.

(p) Each channel consists of five temperature modules and their associated sensors. A channel is OPERABLE if and only if five temperature modules and their associated sensors are OPERABLE.

(q) Isolation signal descriptions for the symbols appearing in the Isolation Signal column are provided below:

Symbol	Description
A	Reactor Vessel Water Level Low (Level 3)
B	Reactor Vessel Water Level Low (Level 2)
C	Main Steam Line Rad.-High and Inop
D	Main Steam Line High Flow
E	Main Steam Tunnel Temp. High
F	Main Steam Tunnel Differential Temp. High
G	Main Steam in Turbine Building Temp. High
H	Turbine Inlet Pressure Low
J	Condenser Vacuum Low
L	Drywell Pressure High
M	Containment Exhaust Duct High Rad.
N	RWCU High Temp.
P	Containment Pressure-High
R	CRVICS Manual Initiation Pushbuttons
S	RHR Heat Exchanger Rooms A, B High Differential Temp.
T	RHR Heat Exchanger Rooms A, B High Temp.
U	Reactor Water Level Low (Level 1)
V	RCIC High Steam Line Space Temp.
	RCIC Low Steam Line Pressure
	RCIC High Steam Flow
	High Turbine Exhaust Pressure
	RCIC Area High Temp.
	RCIC Area High Differential Temp.
X	Permissively Interlocked with Other Equipment
Z	High Rad. in Containment Refueling Pool Exhaust Duct
1	RWCU Equipment High Differential Flow
2	RWCU Vent High Differential Temp.
5	Containment Purge Duct High Radiation

INSTRUMENTATION

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.7.4 The remote shutdown system instrumentation and controls* ~~shown in Table 3.3.7.4-1 and 3.3.7.4-2 respectively~~ shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

ACTION:

a. With one or more required ~~the number of OPERABLE~~ remote shutdown system instrumentation channels inoperable, ~~less than required by Table 3.3.7.4-1,~~ restore the inoperable channel(s) to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

b. With one or more required ~~the number of OPERABLE~~ remote shutdown system controls ~~less than required by Table 3.3.7.4-2,~~ inoperable, restore the inoperable control(s) to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.4.1 Each of the above required remote shutdown system instrumentation channels shall be demonstrated OPERABLE by performance of ~~the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.7.4-1.~~ a CHANNEL CHECK at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

4.3.7.4.2 Each of the above required remote shutdown control switches and control circuits shall be demonstrated OPERABLE by verifying its capability to perform its intended function(s) at least once per 18 months.

* The scope of these controls excludes those associated with the RHR steam condensing mode.

DELETE

TABLE 3.3.7.4-1

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

INSTRUMENT	DIVISION I EQUIPMENT NUMBER	DIVISION I MINIMUM CHANNELS OPERABLE	DIVISION II EQUIPMENT NUMBER	DIVISION II MINIMUM CHANNELS OPERABLE
1. SRV 51D Temp., Supp. Pool Temp.	1C61-R506	1	1C61-R513	1
2. SRV 51C Temp., Supp. Pool Temp.	1C61-R507	1	1C61-R514	1
3. SRV 51G Temp., Supp. Pool Temp.	1C61-R508	1	1C61-R512	1
4. Supp. Pool. Lvl.	1C61-R504	1	1C61-R511	1
5. RPV Lvl.	1C61-R010	1	1C61-R509	1
6. RPV Press.	1C61-R011	1	1C61-R510	1
7. Upper DW Temp.	1C61-R501	1		NA
8. Lower DW Temp.	1C61-R502	1		NA
9. SX Strnr. Dsch. Outlet Press.	1C61-R503	1	1PI-SX024B	1
10. RCIC Cond. Storage Tnk. Lvl.	1C61-R505	1		NA
11. RHR Loop Flow	1C61-R005	1	1E12-R008B*	1
12. RCIC Turb. Speed	1C61-R003	1		NA
13. RCIC Pump Flow	1C61-R001	1		NA
14. RCIC Turb. Flow Cntl.	1C61-R001	1		NA

*Division II RHR pump flow is determined by RHR pump discharge pressure instrumentation at panel 1H22-P021.

This page intentionally left blank.

This page intentionally left blank.

DELETE

TABLE 3.3.7.4-2

REMOTE SHUTDOWN SYSTEM CONTROLS

CONTROL	EQUIPMENT NUMBER	MINIMUM CHANNELS OPERABLE DIVISION I	DIVISION II
1. RHR Pmp	1E12-C002A/B	1	1
2. RHR Supp. Pool Suction Vlv	1E12-F004A/B	1	1
3. RHR Shutdown Cooling Supply Vlv	1E12-F006A	1	NA
4. RHR Shutdown Cooling Sply Otbd Isol Vlv	1E12-F008	1	NA
5. RHR HX Bypass Vlv	1E12-F048A/B	1	1
6. RHR Test Line Vlv to Supp. Pool	1E12-F024A/B	1	1
7. RHR HX Dsch Vlv	1E12-F003A/B	1	1
8. RCIC Steam Inlet Vlv to RHR HX	1E12-F052A/B*	1*	1*
9. RHR HX Inlet Vlv	1E12-F047A/B	1	1
10. RHR HX SX Outlet Vlv	1E12-F068A/B	1	1
11. RHR Shutdown Cooling Return Vlv	1E12-F053A/B	1	1
12. RHR RPV Inboard Inject Vlv	1E12-F042A/B	1	1
13. RHR RPV Outboard Inject Vlv	1E12-F027A	1	NA
14. RHR Cnmt Spray Vlv	1E12-F028A	1	NA
15. RHR HX 1A Condesate Dump Vlv	1E12-F011A*	1*	NA
16. RHR HX 1A RCIC Shutoff Vlv	1E12-F026A*	1*	NA
17. RHR FP/FC Sply Vlv	1E12-F037A	1	NA
18. RHR Pump Min Flow Recirc Vlv	1E12-F064A/B	1	1
19. RHR HX 1A SX Bypass Vlv	1SX173A	1	NA
20. RHR RR Sply Inbd Isol Vlv	1E12-F006B	NA	1
21. Shutdown Cooling Inbd Isol Vlv	1E12-F009	NA	1
22. RPV Head Spray Vlv	1E12-F023	NA	1
23. RCIC Stm Byps Vlv	1E51-F095	1	NA
24. RCIC Pump Cond Stg Tnk Suction Vlv	1E51-F010	1	NA
25. RCIC Supp Pool Suction Vlv	1E51-F031	1	NA
26. RCIC First Test Line Isol. Vlv to RCIC Storage Tank	1E51-F022	1	NA
27. RCIC Inject Vlv	1E51-F013	1	NA
28. RCIC Min Flow Recrc Vlv	1E51-F019	1	NA
29. RCIC Second Test Line Isol Vlv to RCIC Stg Tnk	1E51-F059	1	NA
30. RCIC Turbine L.O. Cool Wtr Sply Vlv	1E51-F046	1	NA
31. RCIC Gland Seal Air Cmpsr	1E51-C002F	1	NA
32. RCIC Outbd Vac Bkr Vlv	1E51-F077	1	NA
33. RHR RCIC Stm Sply Otbd Isol Vlv	1E51-F064	1	NA
34. RCIC Turb Stm Sply Vlv	1E51-F045	1	NA
35. RCIC Turb Exhst Stop Vlv	1E51-F068	1	NA
36. RCIC Trip/Throttle Vlv	1E51-C002E	1	NA
37. RCIC Turb Stm Supply Warm-up Vlv	1E51-F076	NA	1
38. SRV 51C	1B21-F051C	1	1
39. SRV 51D	1B21-F051D	1	1
40. SRV 51G	1B21-F051G	1	1
41. RCIC Stm Flow Cntrl	NA	1	NA
42. RCIC Turb Trip	NA	1	NA
43. DG 1A Vent Fan	1VD01CA	1	NA

This page intentionally left blank.

DELETE

TABLE 3.3.7.4-2 (Continued)

REMOTE SHUTDOWN SYSTEM CONTROLS

CONTROL	EQUIPMENT NUMBER	MINIMUM CHANNELS OPERABLE DIVISION I	MINIMUM CHANNELS OPERABLE DIVISION II
44. DG 1A Oil Rm A Xhst Fan	1VD02CA	1	NA
45. Div I Switchgear Heat Removal Vent Fan	1VX03CA	1	NA
46. Battery Rm 1A1 Xhst Fan	1VX05CA	1	NA
47. SX Pmp Rm Sply Fan	1VH01CA/B	1	1
48. RHR Pmp Rm 1A Sply Fan	1VY02C	1	NA
49. RHR Ht Xchg Rm A Sply Fan	1VY03C	1	NA
50. RCIC Pmp Rm Sply Fan	1VY04C	1	NA
51. DG 1A Ckt Brkr	252-DGKA	1	NA
52. DG 1A Fuel Oil Trnsfr Pmp	1D001PA	1	NA
53. SX Pmp	1SX01PA/B	1	1
54. SX/WS Isol Vlv	1SX014A/B	1	1
55. DG 1A Outlet Vlv	1SX063A	1	NA
56. SX 1A Strnr Inlet Vlv	1SX003A	1	NA
57. SX 1A Strnr Outlet Vlv	1SX004A		
58. SX 1A Strnr Bypass Vlv	1SX008A		
59. SX Xtie Vlv	1SX011A	1	NA
60. RHR Ht Xchg 1A Demin Wtr Sply Vlv	1SX082A	1	NA
61. Fuel Pool Ht Xchg 1A SX Sply Vlv	1SX012A	1	NA
62. Fuel Pool Ht Xchg 1A SX Dsch Vlv	1SX062A	1	NA
63. Fuel Pool M-U SX Sply Vlv	1SX016A	1	NA
64. SX-SGTS Charcoal Bed Train A Deluge Vlv	1SX073A	1	NA
65. Cntl Rm HVAC Recirc Unit A Deluge Vlv	1SX076A	1	NA
66. Cntl Rm HVAC M/U Unit A Deluge Vlv	1SX107A	1	NA
67. RHR HX Clg Wtr Sply Vlv	1E12-F014A/B	1	1
68. RCIC Inbd Vac Bkr Vlv	1E51-F078	NA	1
69. RCIC Stm Sply Inbd Isol Vlv	1E51-F063	NA	1
70. Remote Transfer Switch	1C61-HS501	NA	NA
71. Remote Transfer Switch	1C61-HS502	NA	NA
72. Remote Transfer Switch	1C61-HS508	NA	NA
73. Remote Transfer Switch	1C61-HS509	NA	NA
74. Remote Transfer Switch	1C61-HS510	NA	NA
75. Remote Transfer Switch	1C61-HS511	NA	NA
76. Remote Transfer Switch	1C61-HS527	NA	NA
77. Remote Transfer Switch	1C61-HS001	NA	NA
78. Remote Transfer Switch	1C61-HS002	NA	NA
79. Remote Transfer Switch	1C61-HS003	NA	NA
80. Remote Transfer Switch	1C61-HS004	NA	NA
81. Remote Transfer Switch	1C61-HS005	NA	NA
82. Remote Transfer Switch	1C61-HS006	NA	NA
83. Remote Transfer Switch	1C61-HS007	NA	NA
84. Remote Transfer Switch	1C61-HS008	NA	NA
85. Remote Transfer Switch	1C61-HS009	NA	NA
86. Remote Transfer Switch	1C61-HS010	NA	NA
87. Remote Transfer Switch	1C61-HS011	NA	NA
88. Remote Transfer Switch	1C61-HS012	NA	NA
89. Circuit Breaker 252-AT1AA1	1C61-HS565	1	NA

Remove Entire Page

TABLE 3.3.7.4-2 (Continued)

REMOTE SHUTDOWN SYSTEM CONTROLS

TABLE NOTATIONS

* These controls are not required to be OPERABLE or tested as operation of the associated valves is precluded in accordance with Illinois Power Company's commitment to not utilize the steam condensing mode of the residual heat removal system.

This page intentionally blank.

DELETE

TABLE 4.3.7.4-1

REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. SRV 51B Temp, Supp Pool Temp	M	R
2. SRV 51C Temp, Supp Pool Temp	M	R
3. SRV 51G Temp	M	R
4. Supp Pool Level	M	R
5. RPV Level	M	R
6. RPV Press	M	R
7. UP DW Temp	M	R
8. LO DW Temp	M	R
9. SX Strnr Outlet Press	M	R
10. RCIC Cond Storage Tnk Lvl	M	R
11. RHR Flow	M	R
12. RCIC Turb Speed	M	R
13. RCIC Pump Flow	M	R
14. RCIC Turbine Flow Control	M	R

TABLE 3.3.7.5-1

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	APPLICABLE OPERATIONAL CONDITIONS	ACTION
1. Reactor Vessel Pressure	2	1	1, 2, 3	80
2. Reactor Vessel Water Level	2	1	1, 2, 3	80
3. Suppression Pool Water Level	4	2	1, 2, 3	80
4. Suppression Pool Water Temperature	2/quadrant†	1/quadrant†	1, 2, 3	80
5. Drywell Pressure	2	1	1, 2, 3	80
6. Drywell Air Temperature	2	1	1, 2, 3	80
7. Drywell/Containment Hydrogen and Oxygen Concentration Analyzer and Monitor	2	1	1, 2, 3	83
8. Containment Pressure ##	2/division	1/division	1, 2, 3	80
9. Containment Temperature	2	1	1, 2, 3	80
10. Safety/Relief Valve Acoustic Monitor	1/valve***	1/valve***	1, 2, 3	80
11. Containment/Drywell High Range Gross Gamma Radiation Monitors	4**	2*	1, 2, 3	81
12. HVAC Stack High Range Radioactivity Monitor#	1	1	1, 2, 3	81
13. SGTS Exhaust High Range Radioactivity Monitor#	1	1	1, 2, 3	81
14. Primary Containment Isolation Valve Position Indication ††	2/valve###	1/valve###	1, 2, 3	82

TABLE NOTATIONS

* One each for containment and drywell.

** Two each for containment and drywell.

*** Thermocouples in the SRV discharge line can serve as backup to the acoustic tail pipe monitors indication should one channel of the position indication become inoperable.

\# High range noble gas monitors and iodine/particulate sampler.

\#\# For Divisions I and II only.

\#\#\# Not applicable if valve position indication is unavailable because the valve was deliberately deactivated, provided the valve is in the isolated position and administrative controls are in place to ensure that the control room operators can determine the valve's position, if needed. Valves closed in accordance with these conditions may be reopened on an intermittent basis under administrative controls.

† These instruments monitor suppression pool water temperature when pool water level is below instruments of Specification 3.6.3.1.

†† One channel consists of the open limit switch, and the other channel consists of the closed limit switch for each automatic isolation valve ~~in Table 3.6.4-1 Part 1, "Automatic Isolation Valves."~~ [of Specification 3.6.4.]

REACTOR COOLANT SYSTEM

PRESSURE/TEMPERATURE LIMITS

SURVEILLANCE REQUIREMENTS (Continued)

4.4.6.1.3 The reactor coolant system temperature and pressure shall be determined to be to the right of the criticality limit line of Figure 3.4.6.1-1 curve within 15 minutes prior to the withdrawal of control rods to bring the reactor to criticality.

4.4.6.1.4 The reactor vessel material specimens shall be removed and examined to determine changes in reactor pressure vessel material properties as a function of time and THERMAL POWER as required by 10 CFR 50, Appendix H. ~~in accordance with the schedule in Table 4.4.6.1-1.~~ The results of these examinations shall be used to adjust the curves of Figure 3.4.6.1-1.

4.4.6.1.5 DELETED.

4.4.6.1.6 The reactor vessel flange and head flange temperature shall be verified to be ≥ 70°F when vessel head bolting studs are under full tension:

a. In OPERATIONAL CONDITION 4 when reactor coolant system temperature is:

   1. ≤ 90°F, at least once per 12 hours.
   2. ≤ 80°F, at least once per 30 minutes.

b. Within 30 minutes prior to and at least once per 30 minutes during tensioning of the reactor vessel head bolting studs except 10 percent of the bolting studs may be fully tensioned at ≥ 10°F but ≤ 70°F.

TABLE 4.4.6.1-1

REACTOR VESSEL MATERIAL SURVEILLANCE PROGRAM-WITHDRAWAL SCHEDULE

CAPSULE NUMBER	VESSEL LOCATION	LEAD FACTOR at I.D.	WITHDRAWAL TIME (EFPY)
1. Capsule 1	3°	0.67	10
2. Capsule 2	177°	0.67	20
3. Capsule 3	183°	0.67	Spare

DELETE

This page intentionally blank.

Attachment 3
to U-601884a
LS-91-004
Page 34 of 127

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

PRIMARY CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2*, and 3.

ACTION:

Without PRIMARY CONTAINMENT INTEGRITY, restore PRIMARY CONTAINMENT INTEGRITY within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be demonstrated:

a. After each closing of each penetration subject to Type B testing, except the primary containment air locks, if opened following Type A or B test, by leak rate testing the seals with gas at Pa, 9.0 psig, and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Surveillance Requirement 4.6.1.2.d for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.60 La.

b. At least once per 31 days by verifying that all primary containment penetrations** not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in position, except as provided in ~~Table 3.6.4-1 of~~ Specification 3.6.4.

c. By verifying each primary containment air lock is in compliance with the requirements of Specification 3.6.1.3.

d. By verifying the suppression pool is in compliance with the requirements of Specification 3.6.3.1.

*See Special Test Exception 3.10.1

**Except valves 1HG016 and 1HG017 and valves, blind flanges, and deactivated automatic valves which are located inside the primary containment, steam tunnel, or drywell, and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except such verification need not be performed more often than once per 92 days.

PRIMARY CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Primary containment leakage rates shall be limited to:

a. An overall integrated leakage rate of less than or equal to:

1. La, 0.65% by weight of the containment air per 24 hours at Pa, 9.0 psig.

b.# A combined leakage rate of less than or equal to 0.60 La, for all penetrations and all valves subject to Type B and C tests when pressurized to Pa, 9.0 psig.

c.* Less than or equal to 28 scf per hour for any one main steam line through the isolation valves when tested at Pa, 9.0 psig.

d.## A combined leakage rate of less than or equal to 0.08 La, for all penetrations that are ~~tions shown in Table 3.6.4-1 of Specification 3.6.4 as~~ secondary containment bypass leakage paths when pressurized to Pa, 9.0 psig.

e. A combined leakage rate of less than or equal to 1 gpm times the total number of containment isolation valves in hydrostatically tested lines ~~per Table 3.6.4-1,~~ which penetrate the primary containment, when tested at 1.10 Pa, 9.9 psig.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2**, and 3.

ACTION:

With:

a. The measured overall integrated primary containment leakage rate exceeding 0.75 La, or

b. The measured combined leakage rate for all penetrations and all valves subject to Type B and C tests exceeding 0.60 La, or

c. The measured leakage rate exceeding 28 scf per hour for any one main steam line through the isolation valves, or

d. The combined leakage rate for all penetrations which are ~~shown in Table 3.6.4-1 as~~ secondary containment bypass leakage paths exceeding 0.08 La; or

e. The measured combined leakage rate for all containment isolation valves in hydrostatically tested lines ~~per Table 3.6.4-1~~ which penetrate the primary containment exceeding 1 gpm times the total number of such valves, restore:

---

*Exemption to Appendix J of 10 CFR 50.

**See Special Test Exception 3.10.1.

#The leakage rates of valves 1B21-F032A and B are not required to be included until startup from the third refueling outage in accordance with an approved exemption to Appendix J of 10 CFR50.

##The leakage rates of valves 1B21-F032A and B are not required to be included until startup from the third refueling outage.

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION (Continued)

3.6.1.2 ACTION (Continued):

a. The overall integrated leakage rate(s) to less than or equal to 0.75 La, and

b. The combined leakage rate for all penetrations and all valves subject to Type B and C tests to less than or equal to 0.60 La, and

c. The leakage rate to less than 28 scf per hour for any one main steam line through the isolation valves, and

d. The combined leakage rate for all penetrations which are ~~shown in Table 3.6.4-1 as~~ secondary containment bypass leakage paths to less than or equal to 0.08 La, and

e. The combined leakage rate for all containment isolation valves in hydrostatically tested lines ~~per Table 3.6.4-1~~ which penetrate the primary containment to less than or equal to 1 gpm times the total number of such valves

prior to increasing reactor coolant system temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4-1972 and BN-TOP-1 and verifying the result by the Mass Point Methodology described in ANSI/ANS N56.8-1981.

a. Three Type A Overall Integrated Containment Leakage Rate tests shall be conducted at 40 ± 10 month intervals during shutdown at Pa, 9.0 psig during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection.

b. If any periodic Type A test fails to meet 0.75 La the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet 0.75 La a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet 0.75 La at which time the above test schedule may be resumed.

c. The accuracy of each Type A test shall be verified by a supplemental test which:

   1. Confirms the accuracy of the test by verifying that the difference between the supplemental data and the Type A test data is within 0.25 La. The formula to be used is : $[Lo + Lam - 0.25\ La] \leq Lc \leq [Lo + Lam + 0.25\ La]$ where Lc = supplemental test result, Lo = superimposed leakage and Lam = measured Type A leakage.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.1.2 (Continued)

2. Has duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.

3. Requires the quantity of gas injected into the primary containment or bled from the primary containment during the supplemental test to be between 0.75 La and 1.25 La.

d. Type B and C tests shall be conducted with gas at Pa, 9.0 psig* at intervals no greater than 24 months except for tests involving:**

1. Air locks,
2. Main steam line isolation valves,
3. Penetrations using continuous leakage monitoring systems,
4. All containment isolation valves in hydrostatically tested lines ~~per Table 3.6.4-1~~ which penetrate the primary containment, and
5. Purge supply and exhaust isolation valves with resilient material seals.

e. Air locks shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.3.

f. Main steam line isolation valves shall be leak tested (with gas at Pa, 9.0 psig,) at least once per 18 months.

g. Type B tests for penetrations employing a continuous leakage monitoring system shall be conducted at Pa, 9.0 psig, at every other reactor shutdown for refueling, but in no case at intervals ~~no~~ greater than ~~once per~~ 3 years.

h. All containment isolation valves in hydrostatically tested lines ~~per Table 3.6.4-1~~ which penetrate the primary containment shall be leak tested at (1.10 Pa, 9.9 psig, at) least once per 18 months.

i. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.8.3.

j. The provisions of Specification 4.0.2 are not applicable to Specifications 4.6.1.2.a, 4.6.1.2.b, 4.6.1.2.d, and 4.6.1.2.g.

~~*Unless a hydrostatic test is required per Table 3.6.4-1.~~

~~**The requirements of this specification for valves 1E12-F023, 1E51-F034, 1E51-F035, 1E51-F390, 1E51-F391, 1E12-F061, 1E12-F062, and 1E51-F013 will not be completed until prior to startup following the first refueling outage.~~

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT AVERAGE AIR TEMPERATURE

LIMITING CONDITION FOR OPERATION

3.6.1.7 Primary containment average air temperature shall not exceed 122°F.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

With the primary containment average air temperature greater than 122°F, reduce the average air temperature to within the limit within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.7 The primary containment average air temperature shall be ~~the arithmetical average* of the temperatures at the following locations and shall be~~ determined to be within the limit at least once per 24 hours.

DELETE

	Elevation	Azimuth	Division
a.	778' - 0"	82°	I
b.	778' - 0"	105°	I
c.	778' - 0"	170°	II
d.	778' - 0"	190°	II
e.	778' - 0"	262°	I
f.	778' - 0"	284°	II
g.	778' - 0"	335°	I
h.	778' - 0"	29°	II

*The arithmetical average shall consist of at least one reading from one location per quadrant of the above locations. However, all available instruments should be used in determining the arithmetical average.

CONTAINMENT SYSTEMS

DRYWELL AVERAGE AIR TEMPERATURE

LIMITING CONDITION FOR OPERATION

3.6.2.6 Drywell average air temperature shall not exceed 135°F.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

With the drywell average air temperature greater than 135°F, reduce the average air temperature to within the limit within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.6 The drywell average air temperature shall be ~~the arithmetic average* of the temperatures at the following locations and shall be~~ determined to be within the limit at least once per 24 hours.

DELETE

Instrument Number	Elevation	Azimuth
a. ITE-VP033A	729'-0"#	45°
b. ITE-VP033B	775'-0"	160°
c. ITE-VP033C	741'-0"	45°
d. ITE-VP033D	772'-0"	130°
e. ITE-VP033E	802'-0"	0°
f. ITE-VP033F	746'-0"	307°
g. ITE-VP033G	794'-0"	0°
h. ITE-VP034A	732'-0"#	225°
i. ITE-VP034B	775'-0"	230°
j. ITE-VP034C	741'-0"	220°
k. ITE-VP034D	772'-0"	235°
l. ITE-VP034E	802'-0"	180°
m. ITE-VP034F	746'-0"	135°
n. ITE-VP034G	794'-0"	180°

* The arithmetical average shall consist of at least one reading from each of the above listed elevations. However, all available instruments should be used in determining the arithmetical average.

The instruments at a. and h. are considered to be at the same elevation.

CONTAINMENT SYSTEMS

3/4.6.4 (PRIMARY) CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.4 ~~The~~ Each primary containment isolation valve~~s and the instrumentation line excess flow check valves shown in Table 3.6.4-1~~ shall be OPERABLE#. ~~with isolation times less than or equal to those shown in Table 3.6.4-1.~~

APPLICABILITY: ~~As shown in Table 3.6.4-1.~~ OPERATIONAL CONDITIONS 1, 2, and 3 for all primary containment isolation valves; and OPERATIONAL CONDITIONS 1, 2, 3, and ** for those valves that isolate secondary containment bypass leakage paths; and OPERATIONAL CONDITIONS 1, 2, 3, and 5*** for those valves that isolate the reactor water cleanup system suction containment penetration.

ACTION:

a. With one or more of the primary containment isolation valves ~~shown in Table 3.6.4-1~~ inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and within 4 hours either:

1. Restore the inoperable valve(s) to OPERABLE status, or

2. Isolate each affected penetration by use of at least one deactivated automatic valve secured in the isolated position,*† or

3. Isolate each affected penetration by use of at least one closed manual valve or blind flange.*†

The provisions of Specification 3.0.4 are not applicable provided the affected penetration is isolated in accordance with ACTION a.2 or a.3 above, and provided the associated system, if applicable, is declared inoperable or appropriate ACTION statements for that system are performed.

Otherwise be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Otherwise, in OPERATIONAL CONDITION **, suspend all operations involving CORE ALTERATIONS, handling irradiated fuel in the secondary containment, or with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

---

*Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under administrative controls.

**When handling irradiated fuel in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

*** With any control rod withdrawn. Not applicable to any control rod removed per Specification 3.9.10.1 or 3.9.10.2.

†Containment isolation valves can have dual functions in that they provide both containment isolation and Emergency Core Cooling functions. Any inoperable dual function valve could degrade the valves' other function.

#~~See Note (h) in Table of Notations for Table 3.6.4-1.~~ Locked or sealed closed valves may be opened on an intermittent basis under administrative control.

LIMITING CONDITION FOR OPERATION (Continued)

3.6.4 ACTION (Continued):

b. With one or more of the instrumentation line excess flow check primary containment isolation valves ~~shown in Table 3.6.4-1~~ inoperable, operation may continue provided that within 4 hours either:

1. The inoperable valve is returned to OPERABLE status, or

2. The instrument line is isolated and the associated instrument is declared inoperable.

The provisions of Specification 3.0.4 are not applicable.

Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each primary containment isolation valve ~~shown in Table 3.6.4-1~~ shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair, or replacement work is performed on the valve or its associated actuator, control, or power circuit by cycling the valve through at least one complete cycle of full travel and verifying the ~~specified~~ isolation time.

4.6.4.2 Each automatic primary containment isolation valve ~~shown in Table 3.6.4-1~~ shall be demonstrated OPERABLE during COLD SHUTDOWN or REFUELING at least once per 18 months by verifying that on an isolation test signal each automatic primary containment isolation valve actuates to its isolation position.

4.6.4.3 The isolation time of each power operated or automatic primary containment isolation valve ~~shown in Table 3.6.4-1~~ shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.4.4 Each instrumentation line excess flow check primary containment isolation valve ~~shown in Table 3.6.4-1~~ shall be demonstrated OPERABLE at least once per 18 months by verifying that the valve actuates within the required differential pressure range. ~~provided.~~

Remove Entire Page

TABLE 3.6.4-1

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (Yes/No)	TEST PRESSURE (psig)*
1. Automa*'c Isolation Valves						
1) Main ceam Line C	5		1,2,3		No	9.0
1B21-F022C		C,D,E,F,G,H,J,U,R,X		3-5		
1B21-F028C		C,D,E,F,G,H,J,U,R,X		3-5		
1B21-F067C		C,D,E,F,G,H,J,U,R,X		14		
2) Main Steam Line A	6		1,2,3		No	9.0
1B21-F022A		C,D,E,F,G,H,J,U,R,X		3-5		
1B21-F028A		C,D,E,F,G,H,J,U,R,X		3-5		
1B21-F067A		C,D,E,F,G,H,J,U,R,X		14		
3) Main Steam Line D	7		1,2,3		No	9.0
1B21-F022D		C,D,E,F,G,H,J,U,R,X		3-5		
1B21-F028D		C,D,E,F,G,H,J,U,R,X		3-5		
1B21-F067D		C,D,E,F,G,H,J,U,R,X		14		
4) Main Steam Line B	8		1,2,3		No	9.0
1B21-F022B		C,D,E,F,G,H,J,U,R,X		3-5		
1B21-F028B		C,D,E,F,G,H,J,U,R,X		3-5		
1B?1-F067B		C,D,E,F,G,H,J,U,R,X		14		
5) Feedwater/RHR Line A	9					
1E12-F053A		A,S,T,X,R	1,2,3	65	No	9.0
1B21-F032A		B,L,R	1,2,3,#	NA	Yes	9.0
6) Feedwater/RHR Line B	10					
1E12-F053B		A,S,T,X,R	1,2,3	65	No	9.0
1B21-F032B		B,L,R	1,2,3,#	NA	Yes	9.0

Attachment 3
to U-601884a
LS-91-004
Page 43 of 127

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (Yes/No)	TEST PRESSURE (psig)*
Automatic Isolation Valves (Continued)						
7) RHR Shutdown Cooling	14		1, 2, 3		No	9.0
1E12-F008		A, S, T, X, R		54		
1E12-F009		A, S, T, X, R		54		
8) RHR A To Fuel Pool Cooling	15		1, 2, 3		No	9.0
1E12-F037A		A, S, T, L, R		95		
9) RHR B To Fuel Pool Cooling	16		1, 2, 3		No	9.0
1E12-F037B		A, S, T, L, R		95		
10) RHR A/LPCS Test Line	18		1, 2, 3		No	9.9
1E12-F024A		L, U		117		
1E12-F011A		L, U		33		
1E21-F012		L, U		90		
11) RHR C Test Line	19		1, 2, 3		No	9.9
1E12-F021		L, U		123		
12) RHR B Test Line	20		1, 2, 3		No	9.9
1E12-F024B		L, U		117		
1E12-F011B		L, U		33		
13) RCIC Suction	28		1, 2, 3		No	9.9
1E51-F031		V, S, T, X, B††, R††, E, F		48		

††A single manual isolation switch (R) isolates outboard steam supply line isolation valve (F064) and the RCIC pump suction from suppression pool valve (F031) only following a manual or automatic Reactor Vessel Water Level 2(B) RCIC system initiation.

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Automatic Isolation Valves (Continued)						
14) HPCS Test Line	33		1, 2, 3		No	9.9
1E22-F023		B, L		68		
15) Supp. Pool Cleanup Suction	34		1, 2, 3,#		Yes	9.9
1SF004		B, L, R		84		
16) RCIC	41		1, 2, 3		No	9.0
1E51-F077		L, V##		21		
17) RHR Head Spray	42		1, 2, 3		No	9.0
1E12-F023		A, S, T, X, R		39		
18) RCIC Steam Supply	43		1, 2, 3		No	9.0
1E51-F063		V, S, T, E, F, X		41		
1E51-F064		V, S, T, R††, B††, E, F, X		41		
1E51-F076		V, S, T, E, F, X		8		
19) RCIC Turb Vac Bkr Line	44		1, 2, 3		No	9.0
1E51-F078		L, V,##		27		
20) Main Steam Drain Line	45		1, 2, 3,#(f)		Yes	9.0
1B21-F016		C, D, E, G, H, J, U, X, F, R		26		
1B21-F019		C, D, E, G, H, J, U, X, F, R		26		

††A single manual isolation switch (R) isolates outboard steam supply line isolation valve (F064) and the RCIC pump suction from suppression pool valve (F031) only following a manual or automatic Reactor Vessel Water Level 2(B) RCIC initiation.

Attachment 3
to U-601884
LS-91-004
Page 45 of 127

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Automatic Isolation Valves (Continued)						
21) Comp. Cooling Water Supply	46		1, 2, 3,#		Yes	9.0
1CC049		B, L, R		66		
1CC050		B, L, R		45		
1CC127		B, L, R		61		
22) Comp. Cooling Water Return	47		1, 2, 3,#		Yes	9.0
1CC053		B, L, R		45		
1CC054		B, L, R		89		
1CC060		B, L, R		61		
23) Breathing Air	49		1, 2, 3,#		Yes	9.0
0RA026		B, L, R		NA		
0RA027		B, L, R		NA		
24) Make-up Condensate	50		1, 2, 3,#		Yes	9.0
0MC009		B, L, R		35		
0MC010		B, L, R		35		
25) Fuel Pool Cool/Cleanup Supply	52		1, 2, 3		No	9.0
1FC036		B, L, R		59		
1FC037		B, L, R		59		
26) Fuel Pool Cool/Cleanup Return	53		1, 2, 3		No	9.0
1FC007		B, L, R		66		
1FC008		B, L, R		66		
27) Fire Protection	56		1, 2, 3,#		Yes	9.0
1FP052		B, L, R		87		
1FP051		B, L, R		66		

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Automatic Isolation Valves (Continued)						
28) Instrument Air Supply	57		1, 2, 3,#		Yes	9.0
1IA005		U		20		
1IA006		U		20		
29) Instrument Air Bottles	58		1, 2, 3,#		Yes	9.0
1IA012B		L, B, R		19		
30) Service Air Supply	59		1, 2, 3,#		Yes	9.0
1SA030		B, L, R		16		
1SA029		B, L, R		16		
31) RWCU Suction Line	60		1, 2, 5**		No	9.0
1G33-F001		B, F, N, 1, 2, E, X, R		20		
1G33-F004		B, F, N, 1, 2, E, X, R		20		
32) RWCU Return to Filter	61		1, 2, 3		No	9.0
1G33-F053		B, F, N, 1, 2, E, X, R		21		
1G33-F054		B, F, N, 1, 2, E, X, R		21		
33) Hydrogen Recombiner Supply	62		1, 2, 3,#		Yes	9.0
1HG008		B, L, R		117		
34) RWCU To RHR/FW	64		1, 2, 3		No	9.0
1G33-F040		B, F, N, 1, 2, E, X, R		21		
1G33-F039		B, F, N, 1, 2, E, X, R		21		

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Automatic Isolation Valves (Continued)						
35) RWCU Transfer To Radwaste	65		1, 2, 3,#		Yes	9.0
1WX019		B, L, R		2		
1WX020		B, L, R		2		
36) Process Sampling	68		1, 2, 3,#	NA	Yes	9.0
1PS016		B, L, R				
1PS017		B, L, R				
1PS022		B, L, R				
1PS023		B, L, R				
1PS034		B, L, R				
1PS035		B, L, R				
1PS055		B, L, R				
1PS056		B, L, R				
1PS069		B, L, R				
1PS070		B, L, R				
37) DW/Cont. Equip. Drain	69		1, 2, 3		No	9.0
1RE021		B, L, R		16		
1RE022		B, L, R		16		
38) DW/Cont. Floor Drain	70		1, 2, 3		No	9.0
1RF021		B, L, R		16		
1RF022		B, L, R		16		
39) Hydrogen Recombiner Supply	71		1, 2, 3,#		Yes	9.0
1HG001		B, L, R		117		
40) Hydrogen Recombiner Return	72		1, 2, 3,#		Yes	9.[illegible]
1HG004		B, L, R		117		

Remove Entire Page

CLINTON - UNIT 1

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Automatic Isolation Valves (Continued)						
41) SX To Recir. Pump	78		1, 2, 3		No	9.0
1CC074		L, U		35		
1CC073		L, U		35		
42) Supp. Pool Cleanup Return	79		1, 2, 3,#		Yes	9.0
1SF001		B, L, R		68		
1SF002		B, L, R		68		
43) Fire Protection	81		1, 2, 3,#		Yes	9.0
1FP050		B, L, R		48		
1FP092		B, L, R		48		
44) Fire Protection	82		1, 2, 3,#		Yes	9.0
1FP053		B, L, R		68		
1FP054		B, L, R		68		
45) Cycle Condensate	85		1, 2, 3,#		Yes	9.0
1CY017		B, L, R		44		
1CY016		B, L, R		44		
46) RWCU Letdown	86		1, 2, 3,#		Yes	9.0
1G33-F028		B, F, N, 1, 2, E, X, R		24		
1G33-F034		B, F, N, 1, 2, E, X, R		24		
47) SX From Recir. Pump	88		1, 2, 3		No	
1CC071		L, U		35		
1CC072		L, U		35		

Remove entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Automatic Isolation Valves (Continued)						
48) Containment HVAC Supply	101		1, 2, 3, #		Yes	9.0
1VR001A		B, L, M, Z, 5, R		4		
1VR001B		B, L, M, Z, 5, R		4		
1VR002A,B(a)		P	1(g), 2(g), 3(g), 4(g), #	16		
49) Containment HVAC Exhaust	102		1, 2, 3, #		Yes	9.0
1VQ004A		B, L, M, Z, 5, R		10		
1VQ004B		B, L, M, Z, 5, R		10		
1VQ006A,B(a)		P	1(g), 2(g), 3(g), 4(g), #	16		
50) Plant Chilled Water Supply	103		1, 2, 3, #		Yes	9.0
1WO001A		L, U		44		
1WO001B		L, U		44		
51) Plant Chilled Water Return	104		1, 2, 3, #		Yes	9.0
1WO002A		L, U		44		
1WO002B		L, U		44		
52) Containment Bldg. HVAC	106		1, 2, 3, #		Yes	9.0
1VR007B		B, L, M, Z, 5, R		6		
1VR007A		B, L, M, Z, 5, R		6		
53) DW Chilled Water Supply	107		1, 2, 3		No	9.0
1VP004B		L, U		74		
1VP005B		L, U		74		
54) DW Chilled Water Return	108		1, 2, 3		No	9.0
1VP014B		L, U		74		
1VP015B		L, U		74		

Attachment 3
to U-601884 a
LS-91-008
Page 50 of 127

Remove entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Automatic Isolation Valves (Continued)						
55) DW Chilled Water Supply	109		1, 2, 3		No	9.0
1VP004A		L, U		74		
1VP005A		L, U		74		
56) DW Chilled Water Return	110		1, 2, 3		No	9.0
1VP014A		L, U		74		
1VP015A		L, U		74		
57) Cont. Bldg. HVAC	113		1, 2, 3,#		Yes	9.0
1VR006A		B, L, M, Z, 5, R		6		
1VR006B		B, L, M, Z, 5, R		6		
58) Cont. Monit.	153		1, 2, 3	NA	No	9.0
1CM022		B, L, R				
1CM023		B, L, R				
1CM025		B, L, R				
1CM026		B, L, R				
59) Hydrogen Recombiner Supply	166		1, 2, 3,#		Yes	9.0
1HG005		B, L, R		117		
60) Containment HVAC	169		1, 2, 3	NA	No	9.0
1VR035		B, L, M, Z, 5, R				
1VR036		B, L, M, Z, 5, R				
1VR040		B, L, M, Z, 5, R				
1VR041		B, L, M, Z, 5, R				
61) Cont. Monit.	173		1, 2, 3	NA	No	9.0
1CM048		B, L, R				
1CM047		B, L, R				
1CM011		B, L, R				
1CM012		B, L, R				

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Automatic Isolation Valves (Continued)						
62) Instrument Air Bottles	206		1, 2, 3,#	19	Yes	9.0
1IA013B		L, B, R				
63) Process Sampling	210		1, 2, 3,#	NA	Yes	9.0
1PS038		B, L, R				
1PS037		B, L, R				
1PS048		B, L, R				
1PS047		B, L, R				
1PS004		B, L, R				
1PS005		B, L, R				
1PS010		B, L, R				
1PS009		B, L, R				
1PS031		B, L, R				
1PS032		B, L, R				

Remove entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

	VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
2.	Manual Isolation Valves						
1)	RHR/LPCI A Injection 1E12-F044A	15	NA	1, 2, $3^{(a)}$	NA	No	9.0
2)	RHR/LPCI B Injection 1E12-F044B	16	NA	1, 2, $3^{(a)}$	NA	No	9.0
3)	Containment Monitoring 1CM080A 1CM080B 1CM080C 1CM081A 1CM081B 1CM081C	152	NA	1, 2, 3	NA	No	9.0

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
3. Test Connections, Vents, and Drains[a]						
1) Main Steam Line C	5	NA	1, 2, 3	NA	No	9.0
1B21-F025C						
1E32-F327C						
1E32-F330A						
2) Main Steam Line A	6	NA	1, 2, 3	NA	No	9.0
1B21-F025A						
1E32-F327A						
1E32-F329A						
3) Main Steam Line D	7	NA	1, 2, 3	NA	No	9.0
1B21-F025D						
1E32-F327D						
1E32-F330C						
4) Main Steam Line B	8	NA	1, 2, 3	NA	No	9.0
1B21-F025B						
1E32-F327B						
1E32-F329C						
5) Feedwater/RHR Line A	9	NA		NA		9.0
1B21-F063A			1, 2, 3,#		Yes	
1B21-F030A			1, 2, 3		No	
1E12-F058A			1, 2, 3		No	
1E12-F349A			1, 2, 3		No	

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Test Connections, Vents, and Drains[(a)] (Continued)						
6) Feedwater/RHR Line B	10	NA		NA		9.0
1B21-F063B			1, 2, 3,#		Yes	
1B21-F030B			1, 2, 3		No	
1E12-F058B			1, 2, 3		No	
1E12-F349B			1, 2, 3		No	
1G33-F057			1, 2, 3		No	
7) RHR A Suction 1E12-F334A 1E12-F335A	11	NA	1, 2, 3	NA	No	9.9
8) RHR B Suction 1E12-F334B 1E12-F335B	12	NA	1, 2, 3	NA	No	9.9
9) RHR C Suction 1E12-F334C 1E12-F335C	13	NA	1, 2, 3	NA	No	9.9
10) RHR Shutdown Cooling 1E12-F001	14	NA	1, 2, 3	NA	No	9.0
11) RHR/LPCI A Injection 1E12-F107A 1E12-F331A 1E12-F329A	15	NA	1, 2, 3	NA	No	9.0
12) RHR/LPCI B Injection 1E12-F107B 1E12-F331B 1E12-F329B	16	NA	1, 2, 3	NA	No	9.0

Attachment 3
to U-601884 a
LS-91-004
Page 55 of 127

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Test Connections, Vents and Drains[(a)] (Continued)						
13) RHR/LPCI C Injection 1E12-F056C 1E12-F351 1E12-F456B	17	NA	1, 2, 3	NA	No	9.0
14) RHR A Test Line 1E12-F365A 1E12-F366A 1E21-F346 1E21-F347 1E12-F414 1E12-F415 1E12-F418 1E12-F419 1E12-F420 1E12-F421	18	NA	1, 2, 3	NA	No	9.0
15) RHR C Test Line 1E12-F353 1E12-F354 1E12-F428 1E12-F429	19	NA	1, 2, 3	NA	No	9.0
16) RHR B Test Line 1E12-F365B 1E12-F366B 1E12-F426 1E12-F427	20	NA	1, 2, 3	NA	No	9.0

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Test Connections, Vents and Drains[(a)] (Continued)						
17) RHR HX 1E12-F432A 1E12-F433A	24	NA	1, 2, 3	NA	No	9.0
18) RHR HX 1E12-F432B 1E12-F433B	26	NA	1, 2, 3	NA	No	9.0
19) RCIC Pump Suction 1E51-F336 1E51-F337	28	NA	1, 2, 3	NA	No	9.9
20) RCIC Suction Release Discharge 1E12-F436 1E12-F437	31	NA	1, 2, 3	NA	No	9.9
21) LPCS Pump Suction 1E21-F331 1E21-F344	32	NA	1, 2, 3	NA	No	9.9
22) HPCS Test To Supp. Pool 1E22-F376	33	NA	1, 2, 3	NA	No	9.9
23) Supp. Pool Cleanup Pump Suction 1SF034	34	NA	1, 2, 3	NA	No	9.9

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Test Connections, Vents and Drains[(a)]	(Continued)					
24) HPCS Pump Discharge 1E22-F021 1E22-F366B	35	NA	1, 2, 3	NA	No	9.0
25) LPCS Pump Discharge 1E21-F013 1E21-F358 1E21-F356A	36	NA	1, 2, 3	NA	No	9.0
26) RCIC 1E51-F041	41	NA	1, 2, 3	NA	No	9.0
27) Head Spray 1E51-F034 1E51-F391 1E12-F061 1E51-F367	42	NA	1, 2, 3	NA.	No	9.0
28) RCIC Turb Steam Supply 1E51-F399 1E51-F072 1E51-F401	43	NA	1, 2, 3	NA	No	9.0
29) RCIC Turb Vacuum Breaker 1E51-F080 1E51-F082 1E51-F375 1E51-F376 1E51-F083	44	NA	1, 2, 3	NA	No	9.0

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Test Connections, Vents and Drains[(a)] (Continued)						
30) Main Steam Drain Line 1B21-F017	45	NA	1, 2, 3	NA	No	9.0
31) CCW Supply	46	NA	1, 2, 3	NA		9.0
1CC164					No	
1CC266			1, 2, 3, #		Yes	
32) CCW Return 1CC165	47	NA	1, 2, 3	NA	No	9.0
33) Makeup Condensate 1MC011	50	NA	1, 2, 3	NA	No	9.0
34) Fuel Pool Cool/Cleanup Supply 1FC092	52	NA	1, 2, 3	NA	No	9.0
35) Fuel Pool Cool/Cleanup Return 1FC093	53	NA	1, 2, 3	NA	No	9.0
36) Fire Protection 1FP127	56	NA	1, 2, 3	NA	No	9.0
37) Instrument Air 1IA039	57	NA	1, 2, 3	NA	No	9.0

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Test Connections, Vents and Drains[(a)]	(Continued)					
38) Service Air Line 1SA046	59	NA	1, 2, 3	NA	No	9.0
39) RWCU Pump Suction 1G33-F002	60	NA	1, 2, 3	NA	No	9.0
40) RWCU Return 1G33-F061	61	NA	1, 2, 3	NA	No	9.0
41) Hydrogen Recombiner 1HG019	62	NA	1, 2, 3	NA	No	9.0
42) CRD Pump Discharge 1C11-F128	63	NA	1, 2, 3	NA	No	9.0
43) RWCU Return 1G33-F055	64	NA	1, 2, 3	NA	No	9.0
44) Containment Pressurization (test penet.) 1SA129	67	NA	1, 2, 3	NA	No	9.0
45) Hydrogen Recombiner 1HG016 1HG020	71	NA	1, 2, 3	NA	No	9.0
46) Hydrogen Recombiner 1HG017 1HG021	72	NA	1, 2, 3	NA	No	

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Test Connections, Vents and Drains[(a)]	(Continued)					
47) SX To Recir. Pump 1CC170	78	NA	1, 2, 3	NA	No	9.0
48) Supp. Pool Cleanup Return 1SF023	79	NA	1, 2, 3	NA	No	9.0
49) Fire Protection 1FP129	81	NA	1, 2, 3	NA	No	9.0
50) Fire Protection 1FP128	82	NA	1, 2, 3	NA	No	9.0
51) Cycle Condensate 1CY019	85	NA	1, 2, 3	NA	No	9.0
52) RWCU Letdown 1G33-F070	86	NA	1, 2, 3	NA	No	9.0
53) SX From Recir. Pump 1CC171	88	NA	1, 2, 3	NA	No	9.0
54) Containment HVAC Supply 1VR003	101	NA	1, 2, 3	NA	No	9.0
55) Containment HVAC Return 1VQ007	102	NA	1, 2, 3	NA	No	9.0
56) Containment HVAC 1VR011	106	NA	1, 2, 3	NA	No	9.0

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Test Connections, Vents and Drains[(a)] (Continued)						
57) Drywell Chilled Water 1VP044B 1VP077D	107	NA	1, 2, 3	NA	No	9.0
58) Drywell Chilled Water 1VP047B 1VP077B	108	NA	1, 2, 3	NA	No	9.0
59) Drywell Chilled Water 1VP044A 1VP077C	109	NA	1, 2, 3	NA	No	9.0
60) Drywell Chilled Water 1VP047A 1VP077A	110	NA	1, 2, 3	NA	No	NA
61) Containment HVAC 1VR012	113	NA	1, 2, 3	NA	No	9.0
62) Standby Liquid Control 1C41-F340B 1C41-F341B	116	NA	1, 2, 3	NA	No	9.0
63) Hydrogen Recombiner 1HG018	166	NA	1, 2, 3	NA	No	9.0

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Test Connections, Vents and Drains[(a)]	(Continued)					
64) Drywell Pressure		NA	1, 2, 3	NA	No	9.0
1CM076	151					
1CM077	203					
65) Reactor Pressure	151	NA	1, 2, 3	NA	No	9.0
1CM072						
1CM073						
66) Reactor Pressure	160	NA	1, 2, 3	NA	No	9.0
1CM074						
1CM075						
67) Equipment Hatch	1	NA	1, 2, 3	NA	No	9.0
1CM099						
68) Suppression Pool Level	177	NA	1, 2, 3	NA	No	9.0
1E51 - F437A[(h)]						
1E51 - F437B[(h)]						
69) Suppression Pool Level	179	NA	1, 2, 3	NA	No	9.0
1E22 - F381A[(h)]						
1E22 - F381B[(h)]						
1SM027A[(h)]						
1SM027B[(h)]						
70) Suppression Pool Level	181	NA	1, 2, 3	NA	No	9.0
1SM026A[(h)]						
1SM026B[(h)]						
71) Suppression Pool Level	183	NA	1, 2, 3	NA	No	9.0
1CM100A[(h)]						
1CM100B[(h)]						

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Other Isolation Valves (Continued)						
4. Other Isolation Valves						
1) Main Steam Line C 1E32-F001J	5	NA	1, 2, 3	NA	No	9.0
2) Main Steam Line A 1E32-F001A	6	NA	1, 2, 3	NA	No	9.0
3) Main Steam Line D 1E32-F001N	7	NA	1, 2, 3	NA	No	9.0
4) Main Steam Line B 1E32-F001E	8	NA	1, 2, 3	NA	No	9.0
5) Feedwater/RHR Line A 1B21-F010A 1B21-F065A	9	NA	1, 2, 3,#	NA	Yes	9.0
6) Feedwater/RHR Line B 1B21-F010B 1B21-F065B	10	NA	1, 2, 3,#	NA	Yes	9.0
7) RHR A Suction Line 1E12-F004A(e)	11	NA	1, 2, 3	NA	No	9.9
8) RHR B Suction Line 1E12-F004B(e)	12	NA	1, 2, 3	NA	No	9.9

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Other Isolation Valves (Continued)						
9) RHR C Suction Line 1E12-F105	13	NA	1, 2, 3	NA	No	9.9
10) RHR A Shutdown Cooling 1E12-F475	14	NA	1, 2, 3	NA	No	9.0
11) RHR/LPCI A Injection 1E12-F027A 1E12-F042A 1E12-F028A	15	NA	1, 2, 3	NA	No	9.0
12) RHR/LPCI B Injection 1E12-F027B 1E12-F042B 1E12-F028B	16	NA	1, 2, 3	NA	No	9.0
13) RHR/LPCI C Injection 1E12-F042C 1E12-F041C 1E12-F301C	17	NA	1, 2, 3	NA	No	9.0
14) RHR A/LPCS Test Line 1E21-F011 1E12-F064A	18	NA	1, 2, 3	NA	No	9.9
15) RHR C Test Line 1E12-F064C	19	NA	1, 2, 3	NA	No	9.9
16) RHR B Test Line 1E12-F064B	20	NA	1, 2, 3	NA	No	9.9

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Other Isolation Valves (Continued)						
17) RHR A Suction Relief 1E12-F017A	21	NA	1, 2, 3	NA	No	9.9
18) RHR Shutdown Cool Relief 1E12-F005	23	NA	1, 2, 3	NA	No	9.9
19) RHR A HX Relief Line 1E12-F055A	24	NA	1, 2, 3	NA	No	9.9
20) RHR B Suction Relief 1E12-F017B	25	NA	1, 2, 3	NA	No	9.9
21) RHR B HX Relief Line 1E12-F055B	26	NA	1, 2, 3	NA	No	9.9
22) RHR/LPCI B Inj. Relief 1E12-F025B	27	NA	1, 2, 3	NA	No	9.0
23) RHR C Suction Relief 1E12-F101	29	NA	1, 2, 3	NA	No	9.9
24) RHR/LPCI C Inj. Relief 1E12-F025C	30	NA	1, 2, 3	NA	No	9.9
25) RHR To RCIC Suction Relief 1E12-F036	31	NA	1, 2, 3	NA	No	9.9
26) LPCS Suction Line 1E21-F001	32	NA	1, 2, 3	NA	No	9.9

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Other Isolation Valves (Continued)						
27) HPCS Test Line & Relief 1E22-F014 1E22-F035 1E22-F039 1E22-F012	33	NA	1, 2, 3	NA	No	9.9
28) HPCS Injection Line 1E22-F004 1E22-F005 1E22-F304	35	NA	1, 2, 3	NA	No	9.0
29) LPCS Injection Line 1E21-F005 1E21-F006 1E21-F340	36	NA	1, 2, 3	NA	No	9.0
30) HPCS Suction Line 1E22-F015	37	NA	1, 2, 3	NA	No	9.9
31) LPCS Pump Relief Line 1E21-F018 1E21-F031	38	NA	1, 2, 3	NA	No	9.9
32) RCIC Min. Flow Relief 1E51-F090 1E51-F019	40	NA	1, 2, 3	NA	No	9.9
33) RCIC Turbine Exhaust 1E51-F068 1E51-F040	41	NA	1, 2, 3	NA	No	9.9
34) RCIC Head Spray 1E51-F013 1E51-F066 1E51-F316	42	NA	1, 2, 3	NA	No	9.0

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Other Isolation Valves (Continued)						
Primary Containment (Continued)						
35) SX To Containment Cooler 1SX089A 1SX088A	48	NA	1, 2, 3	NA	No	9.0
36) Instrument Air 1IA175	57	NA	1, 2, 3	NA	No	9.0
37) Instrument Air Bottles 1IA042B 1IA012A	58	NA	1, 2, 3,#	NA	Yes	9.0
38) CRD 1C11-F122 1C11-F083	63	NA	1, 2, 3,#	NA	Yes	9.0
39) RHR Flush Line 1E12-F030	76	NA	1, 2, 3	NA	No	9.9
40) RHR/LPCI A Injec. Relief 1E12-F025A	87	NA	1, 2, 3	NA	No	9.0
41) RHR HX A Vent 1E12-F074A	89	NA	1, 2, 3	NA	No	9.0

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Other Isolation Valves (Continued)						
Primary Containment (Continued)						
42) DW Chilled Water Relief 1VP023B	107	NA	1, 2, 3	NA	No	9.0
43) DW Chilled Water Relief 1VP027B	108	NA	1, 2, 3	NA	No	9.0
44) DW Chilled Water Relief 1VP023A	109	NA	1, 2, 3	NA	No	9.0
45) DW Chilled Water 1VP027A	110	NA	1, 2, 3	NA	No	9.0
46) Containment Press 1CM003A(c)(d)	150	NA	1, 2, 3	$\geq 1 \leq 15$(b)	No	NA
47) Drywell Pressure 1CM051(c)(d)	151	NA	1, 2, 3	$\geq 1 \leq 30$(b)	No	NA
48) Reactor Pressure 1CM066(c)(d)	151	NA	1, 2, 3	$\geq 1 \leq 5$(b)	No	NA
49) Containment Bldg. HVAC 1VG056B(c)(d)	156	NA	1, 2, 3	$\geq 1 \leq 30$(b)	No	NA

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Other Isolation Valves (Continued)						
Primary Containment (Continued)						
50) Suppression Pool Level 1CM002A(c)(d) 1CM003B(c)(d)	157	NA	1, 2, 3	$\geq 1 \leq 15^{(b)}$	No	NA
51) Reactor Pressure 1CM067(c)(d)	160	NA	1, 2, 3	$\geq 1 \leq 5^{(b)}$	No	NA
52) Suppression Pool Level 1SM010(c)(d)	164	NA	1, 2, 3	$\geq 1 \leq 15^{(b)}$	No	NA
53) Containment Bldg. HVAC 1VR016A(c)(d) 1VR016B(c)(d) 1VR018A(c)(d)	165	NA	1, 2, 3	$\geq 1 \leq 30^{(b)}$	No	NA
54) Containment Bldg. HVAC 1VG057B(c)(d)	167	NA	1, 2, 3	$\geq 1 \leq 30^{(b)}$	No	NA
55) Containment Bldg. HVAC 1VR018B(c)(d)	168	NA	1, 2, 3	$\geq 1 \leq 30^{(b)}$	No	NA
56) Suppression Pool 1SM009(c)(d)	171	NA	1, 2, 3	$\geq 1 \leq 15^{(b)}$	No	NA

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Other Isolation Valves (Continued)						
Primary Containment (Continued)						
57) RHR HX Vent B 1E12-F074B	172	NA	1, 2, 3	NA	No	9.9
58) Suppression Pool Level 1E51-F377B(c)(d)	177	NA	1, 2, 3	≥1≤21(b)	No	NA
59) Suppression Pool Level 1E22-F332(c)(d) 1SM011(c)(d)	179	NA	1, 2, 3	≥1≤21(b)	No	NA
60) HPCS 1E22-F330(c)(d)	180	NA	1, 2, 3	≥1≤15(b)	No	NA
61) Suppression Pool Level 1SM008(c)(d)	181	NA	1, 2, 3	≥1≤21(b)	No	NA
62) Suppression Pool Level 1CM002B(c)(d)	183	NA	1, 2, 3	≥1≤21(b)	No	NA
63) RCIC 1E51-F377A(c)(d)	200	NA	1, 2, 3	≥1≤15(b)	No	NA
64) Drywell Pressure 1CM053(c)(d)	203	NA	1, 2, 3	≥1≤30(b)	No	NA

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	PENETRATION NUMBER	ISOLATION SIGNAL†	APPLICABLE OPERATIONAL CONDITIONS	MAXIMUM ISOLATION TIME (Seconds)	SECONDARY CONTAINMENT BYPASS PATH (YES/NO)	TEST PRESSURE (psig)*
Other Isolation Valves (Continued)						
Primary Containment (Continued)						
65) SX Return 1SX096B 1SX097B	204	NA	1, 2, 3	NA	No	9.0
66) SX Supply 1SX088B 1SX089B	205	NA	1, 2, 3	NA	No	9.0
67) Instrument Air Bottles 1IA042A 1IA013A	206	NA	1, 2, 3, #	NA	Yes	9.0
68) SX From Cont. Cir. 1SX096A 1SX097A	208	NA	1, 2, 3	NA	No	9.0
b. Drywell						
None	NA	NA	NA	NA	NA	NA

Remove Entire Page

TABLE 3.6.4-1 (Continued)

CONTAINMENT ISOLATION VALVES

TABLE NOTATIONS

(a) May be opened on an intermittent basis under administrative control during applicable OPERATIONAL CONDITIONS.

(b) Excess flow check valve actuation differential pressure.

(c) Isolation valving for instrument lines which penetrate the containment conform to the requirements of NRC Regulatory Guide 1.11. The in-service inspection program will provide assurance of the operability and integrity of these isolation provisions. Type "C" testing will not be performed on the instrument line isolation valves. The instrument lines will be within the boundaries of the Type "A" test, open to the media (containment atmosphere or suppression pool water) to which they will be exposed under postulated accident conditions. Instrument taps from the process line located between the process isolation valves and the penetration, and not themselves penetrating containment, will be Type "A" and/or "C" tested along with the process line isolation valves.

(d) Excess flow check valve.

(e) The RHR system may be operating in the shutdown cooling mode during the Type A test. These valves are tested using water but the results are not required to be added to the Type A test results. The LPCS, HPCS, and RHR may be aligned in the normal standby or injection mode during the Type A test. This will expose the closed loop outside containment to containment pressure through the suppression pool. This is the closest valve alignment to the post-LOCA alignment possible. Type C water test results on these suction valves will not be added to the Type A test results.

(f) Valves shall be closed in accordance with SECONDARY CONTAINMENT INTEGRITY.

(g) Valves shall be "sealed closed" by utilizing mechanical devices to seal or lock the valve closed or to prevent power from being supplied to the valve operator.

(h) OPERABILITY of these valves is not required until completion of corresponding plant modification.

When handling irradiated fuel in secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

Isolates on RCIC low steam line pressure only.

† Isolation signal descriptions are provided in Table 3.6.4-2.

* For test pressure = 9.0 psig, the valve(s) shall be pressurized using air or nitrogen, and for test pressure = 9.9 psig, the valve(s) shall be pressurized using water.

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

Remove Entire Page

TABLE 3.6.4-2

CONTAINMENT ISOLATION TRIP SIGNALS

Abbrev.	Description
A	Reactor Vessel Water Level Low (Level 3)
B	Reactor Vessel Water Level Low (Level 2)
C	Main Steam Line Rad.-High and Inop
D	Main Steam Line High Flow
E	Main Steam Tunnel Temp. High
F	Main Steam Tunnel Differential Temp. High
G	Main Steam in Turbine Building Temp. High
H	Turbine Inlet Pressure Low
J	Condenser Vacuum Low
L	Drywell Pressure High
M	Containment Exhaust Duct High Rad.
N	RWCU High Temp.
P	Containment Pressure-High
R	CRVICS Manual Initiation Pushbuttons
S	RHR Heat Exchanger Rooms A, B High Differential Temp.
T	RHR Heat Exchanger Rooms A, B High Temp.
U	Reactor Water Level Low (Level 1)
V	RCIC High Steam Line Space Temp.
	RCIC Low Steam Line Pressure
	RCIC High Steam Flow
	High Turbine Exhaust Pressure
	RCIC Area High Temp.
	RCIC Area High Differential Temp.
X	Permissively Interlocked with Other Equipment
Z	High Rad. in Containment Refueling Pool Exhaust Duct
1	RWCU Equipment High Differential Flow
2	RWCU Vent High Differential Temp.
5	Containment Purge Duct High Radiation

3/4.6.5 DRYWELL POST-LOCA VACUUM RELIEF VALVES

LIMITING CONDITION FOR OPERATION

3.6.5 All drywell post-LOCA vacuum relief valves shall be OPERABLE and closed.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2*, and 3.

ACTION:

a. With one drywell post-LOCA vacuum relief valve inoperable for opening but known to be closed, restore the inoperable vacuum relief valve to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With one drywell post-LOCA vacuum relief valve open, restore the open vacuum relief valve to the closed position within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

c. With the position indicator of an OPERABLE drywell post-LOCA vacuum relief valve inoperable, verify the vacuum relief valve to be closed at least once per 24 hours by visual inspection. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.5 Each drywell post-LOCA vacuum relief valve shall be:

a. Verified closed at least once per 24 hours.

b. Demonstrated OPERABLE:

   1. At least once per 31 days by:

      a) Cycling the vacuum relief valve through at least one complete cycle of full travel.

      b) Verifying the position indicator OPERABLE by observing expected valve movement during the cycling test.

   2. At least once per 18 months by:

      a) Verifying the pressure differential required to open the vacuum relief valve, from the closed position, to be $\leq$ 0.2 psid, and

*See Special Test Exception 3.10.1.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.5 (Continued)

b) Verifying the position indicator OPERABLE by performance of a CHANNEL CALIBRATION.

3/4.6.6 SECONDARY CONTAINMENT

SECONDARY CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.6.1 SECONDARY CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, and *

ACTION:

Without SECONDARY CONTAINMENT INTEGRITY:

a. In OPERATIONAL CONDITION 1, 2, or 3, restore SECONDARY CONTAINMENT INTEGRITY within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. In OPERATIONAL CONDITION *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS, and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.6.6.1 SECONDARY CONTAINMENT INTEGRITY shall be demonstrated by:

a. Verifying at least once per 24 hours that the pressure within the secondary containment is greater than or equal to 0.25 inches of vacuum water gauge.

b. Verifying at least once per 31 days that:

   1. All secondary containment equipment hatches are closed and sealed.

   2. At least one door in each access to the secondary containment is closed, except during normal entry and exit.

   3. All secondary containment penetrations not capable of being closed by OPERABLE secondary containment automatic isolation dampers/valves required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic dampers/valves secured in position, except as provided in Specification 3.6.6.2.

*When irradiated fuel is being handled in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.6.1 (Continued)

c. At least once per 18 months by verifying that:

1. Each standby gas treatment subsystem will draw down the secondary containment to greater than or equal to 0.25 inches of vacuum water gauge from the test start pressure in less than or equal to the time period corresponding to the measure flow rate specified in Figure 4.6.6.1-1.

2. By operating each standby gas treatment subsystem for one hour and maintaining $\geq$ 0.25 in. of vacuum water gauge in the secondary containment at a flow rate not exceeding 4000 cfm ± 10%.

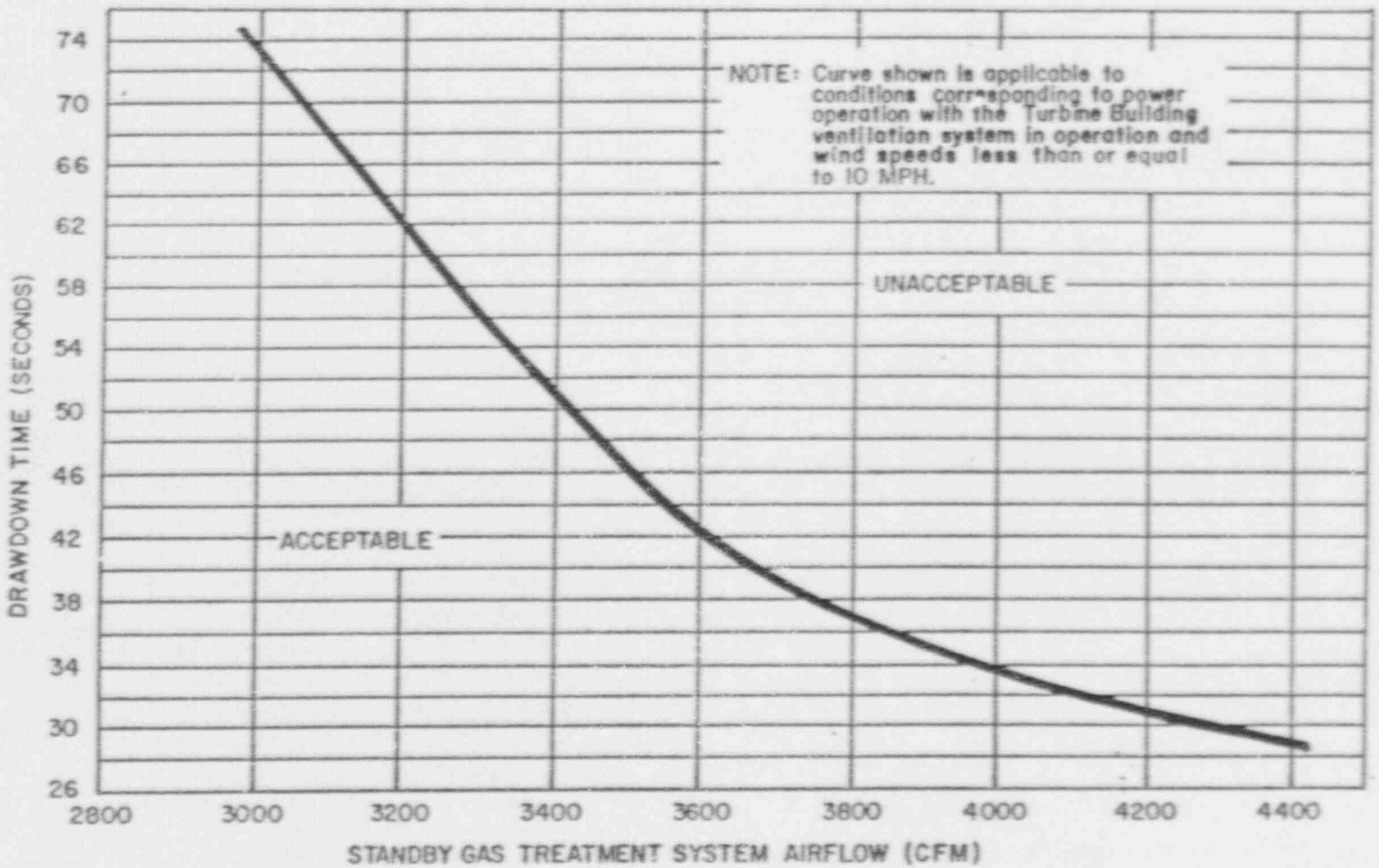

FIGURE 4.6.6.1-1
SECONDARY CONTAINMENT DRAWDOWN TIME
FOR 1500 CFM BOUNDARY LEAKAGE

CONTAINMENT SYSTEMS

SECONDARY CONTAINMENT AUTOMATIC ISOLATION DAMPERS

LIMITING CONDITION FOR OPERATION

3.6.6.2 ~~The~~ Each secondary containment ventilation system automatic isolation damper~~s shown in Table 3.6.6.2-1~~ shall be OPERABLE ~~with isolation times less than or equal to the times shown in Table 3.6.6.2-1.~~

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, and *.

ACTION:

With one or more of the secondary containment ventilation system automatic isolation dampers ~~shown in Table 3.6.6.2-1~~ inoperable, maintain at least one isolation damper OPERABLE in each affected penetration that is open, and within 8 hours either:

a. Restore the inoperable damper to OPERABLE status, or

b. Isolate each affected penetration by use of at least one deactivated automatic damper secured in the isolation position, or

c. Isolate each affected penetration by use of at least one closed manual valve or blind flange.

The provisions of Specification 3.0.4 are not applicable provided the affected penetration is isolated in accordance with ACTION b and/or c above, and provided the appropriate system, if applicable, is declared inoperable and the appropriate ACTION statements for that system are performed.

Otherwise, in OPERATIONAL CONDITION 1, 2 or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Otherwise, in OPERATIONAL CONDITION *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

*When irradiated fuel is being handled in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

CONTAINMENT SYSTEMS

SECONDARY CONTAINMENT AUTOMATIC ISOLATION DAMPERS

SURVEILLANCE REQUIREMENTS

4.6.6.2 Each secondary containment ventilation system automatic isolation damper ~~shown in Table 3.6.6.2-1~~ shall be demonstrated OPERABLE:

a. Prior to returning the damper to service after maintenance, repair or replacement work is performed on the damper or its associated actuator, control or power circuit by cycling the damper through at least one complete cycle of full travel and verifying the ~~specified~~ isolation time.

b. During COLD SHUTDOWN or REFUELING at least once per 18 months by verifying that on a secondary containment isolation test signal each secondary containment automatic isolation damper actuates to its isolation position.

c. At least once per 92 days by verifying the isolation time to be within its limit when tested.

Remove Entire Page

TABLE 3.6.6.2-1

SECONDARY CONTAINMENT VENTILATION SYSTEM AUTOMATIC ISOLATION DAMPERS

DAMPER FUNCTION	MAXIMUM ISOLATION TIME (Seconds)
1. Fuel Building Supply Damper, Outboard, 1VF004Y	4
2. Fuel Building Supply Damper, Inboard, 1VF006Y	4
3. Fuel Building Exhaust Damper, Outboard, 1VF09Y	4
4. Fuel Building Exhaust Damper, Inboard, 1VF07Y	4

CONTAINMENT SYSTEMS

STANDBY GAS TREATMENT SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.6.3 Two independent standby gas treatment subsystems shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, and *.

ACTION:

a. With one standby gas treatment subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days, or:

   1. In OPERATIONAL CONDITION 1, 2, or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   2. In OPERATIONAL CONDITION *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

b. With both standby gas treatment subsystems inoperable in OPERATIONAL CONDITION *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3. are not applicable.

SURVEILLANCE REQUIREMENTS

4.6.6.3 Each standby gas treatment subsystem shall be demonstrated OPERABLE:

a. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the subsystem operates for at least 10 hours with the heaters OPERABLE.

   At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the subsystem by:

*When irradiated fuel is being handled in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

4.6.6.3 (Continued)

1. Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978*, and the system flow rate is 4000 cfm ± 10%.

2. Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978*, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978*, for a methyl iodide penetration of less than 0.175%; when tested in accordance with ASTM D3803-79 methods, with the following parameters:

   a) Bed Depth - 4 inches
   b) Velocity - 40 fpm
   c) Temperature - 80°C
   d) Relative Humidity - 70%

   and

3. Verifying a subsystem flow rate of 4000 cfm ± 10% during system operation when tested in accordance with ANSI N510-1980.

c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978*, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978*, for a methyl iodide penetration of less than 0.175%; in accordance with ASTM D3803-79 methods, with the following parameters:

   a) Bed Depth - 4 inches
   b) Velocity - 40 fpm
   c) Temperature - 80°C
   d) Relative Humidity - 70%

*ANSI N510-1980 shall be used in place of ANSI N510-1975 as referenced in Regulatory Guide 1.52, Revision 2, March 1978.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.6.3 (Continued)

d. 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 for the:

   a) LOCA, and
   b) Fuel handling accident.

2. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 8.0 inches Water Gauge while operating the filter train at a flow rate of 4000 cfm ± 10%.

3. Verifying that the filter train starts and isolation dampers open on receipt of the following test signals:

   a) Manual initiation from the control room, and
   b) Simulated automatic initiation signal.

4. Verifying that the filter cooling bypass dampers can be manually opened and the fan can be manually started.

5. Verifying that the heaters dissipate at least 18.0 kW when tested in accordance with ANSI N510-1980.

e. After each complete or partial replacement of a HEPA filter bank, by verifying that the HEPA filter bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 while operating the system at a flow rate of 4000 cfm ± 10%.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorber bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 4000 cfm ± 10%.

CONTAINMENT SYSTEMS

3/4.6.7 ATMOSPHERE CONTROL

CONTAINMENT HYDROGEN RECOMBINER SYSTEMS

LIMITING CONDITION FOR OPERATION

3.6.7.1 Two independent containment hydrogen recombiner systems shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

ACTION:

With one containment hydrogen recombiner system inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.6.7.1 Each containment hydrogen recombiner system shall be demonstrated OPERABLE:

a. At least once per 6 months by verifying during a recombiner system functional test that the heater sheath temperature increases to greater than or equal to 600°F within 60 minutes and maintains greater than or equal to 600°F for at least 2 hours.

b. At least once per 18 months by:

 1. Performing a CHANNEL CALIBRATION of all recombiner operating instrumentation and control circuits.

 2. Verifying through a visual examination that there is no evidence of abnormal conditions within the recombiner enclosure; i.e, loose wiring or structural connections, deposits of foreign materials, etc.

 3. Verifying the integrity of all heater electrical circuits by performing a resistance to ground test within 2 hours following the above required functional test. The resistance to ground for any heater phase shall be greater than or equal to 10,000 ohms.

 4. Verifying during a recombiner system functional test that the reaction chamber temperature increase to be $\geq$ 1150°F within 2 hours and is maintained between 1177°F and 1223°F for at least 2 hours.

CONTAINMENT SYSTEMS

CONTAINMENT HYDROGEN RECOMBINER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.6.7.1 (Continued)

c. By measuring the leakage rate:

1. As a part of the integrated leakage rate test required by Specification 3.6.1.2, or

2. Of the system outside of the containment isolation valve at Pa, 9.0 psig, on the schedule required by Specification 4.6.1.2, and including the measured leakage as a part of the leakage determined in accordance with Specification 4.6.1.2.

CONTAINMENT SYSTEMS

CONTAINMENT/DRYWELL HYDROGEN MIXING SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.7.2 Two independent containment/drywell hydrogen mixing systems shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

ACTION:

With one containment/drywell hydrogen mixing system inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.6.7.2 Each containment/drywell hydrogen mixing system shall be demonstrated OPERABLE:

a. At least once per 92 days by:

   1. Starting the system from the control room, and
   2. Verifying that the system operates for at least 15 minutes.

b. At least once per 18 months by verifying a system flow rate of at least 800 scfm.

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT/DRYWELL HYDROGEN IGNITION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.7.3 The primary containment/drywell hydrogen ignition system, consisting of two independent primary containment/drywell hydrogen ignition subsystems each consisting of six circuits, shall be operable with no more than two igniter assemblies inoperable per circuit, no more than five igniter assemblies inoperable per subsystem, and no adjacent igniter assemblies inoperable.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

ACTION:

a. With one primary containment/drywell hydrogen ignition subsystem and/or circuit inoperable, restore the inoperable subsystem and/or circuit to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.

b. With any adjacent igniter assemblies inoperable, restore all igniter assemblies adjacent to an inoperable igniter assembly to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.6.7.3 The primary containment/drywell hydrogen ignition system shall be demonstrated OPERABLE.

a. At least once per 184 days by energizing all the igniter assemblies and performing current/voltage measurements of each circuit.

   1. If more than three igniter assemblies on either subsystem are determined to be inoperable, Surveillance Requirement 4.6.7.3.a shall be performed at least once per 92 days until this condition no longer exists.

   2. If more than one igniter assembly on each subsystem are determined to be inoperable, determine if the inoperable igniter assemblies are adjacent.

b. At least once per 18 months, by energizing each igniter assembly, verifying a surface temperature of at least 1700°F for each of the accessible igniters and verifying by measurement sufficient current/voltage to develop 1700°F surface temperature for those igniter assemblies in inaccessible areas.

associated with each primary containment electrical penetration circuit shall be OPERABLE. The scope of these protective devices excludes those circuits for which credible fault currents would not exceed the electrical penetrations' design ratings.

ELECTRICAL POWER SYSTEMS

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

LIMITING CONDITION FOR OPERATION

3.8.4.1 ~~All~~ Primary and backup containment penetration conductor overcurrent protective devices ~~shown in Table 3.8.4.1-1 shall be OPERABLE.~~

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

a. With one or more of the required containment penetration conductor overcurrent protective devices ~~shown in Table 3.8.4.1-1~~ inoperable, declare the affected system or component inoperable and apply the appropriate ACTION statement for the affected system and:

   1. For 6.9-kV circuit breakers, de-energize the 6.9-kV circuit(s) by tripping the associated redundant circuit breaker(s) within 72 hours and verify the redundant circuit breaker to be tripped at least once per 7 days thereafter.

   2. For lower voltage circuit breakers, remove the inoperable circuit breaker(s) from service by racking out the breaker within 72 hours and verify the inoperable breaker(s) to be racked out at least once per 7 days thereafter.

   Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. The provisions of Specification 3.0.4 are not applicable to overcurrent devices in 6.9-kV circuits which have their redundant circuit breakers tripped or to lower voltage circuits which have the inoperable circuit breaker racked out.

SURVEILLANCE REQUIREMENTS

4.8.4.1 Each of the required containment penetration conductor overcurrent protective devices ~~shown in Table 3.8.4.1-1~~ shall be demonstrated OPERABLE:

a. At least once per 18 months:

   1. By verifying that the medium voltage 6.9-kV circuit breakers are OPERABLE by selecting, on a rotating basis, at least 10% of the circuit breakers and performing:

      a) A CHANNEL CALIBRATION of the associated protective relays, and

No Changes. This page provided for continuity only.

ELECTRICAL POWER SYSTEMS

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

SURVEILLANCE REQUIREMENTS (Continued)

4.8.4.1 (Continued)

b) An integrated system functional test which includes simulated automatic actuation of the system and verifying that each relay and associated circuit breakers and overcurrent control circuits function as designed.

c) For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested.

2. By selecting and functionally testing a representative sample of at least 10% of each type of lower voltage circuit breakers. Circuit breakers selected for functional testing shall be selected on a rotating basis. Testing of these circuit breakers shall consist of injecting currents in excess of the breaker's nominal setpoint and measuring the response time of the long time delay and short time delay trip elements and setpoint of the instantaneous element where applicable. The measured response time shall be compared to the manufacturer's data to ensure that it is less than or equal to a value specified by the manufacturer. Circuit breakers found inoperable during functional testing shall be restored to OPERABLE status prior to resuming operation. For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested.

b. At least once per 60 months by subjecting each circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations.

Remove Entire Page

TABLE 3.8.4.1-1

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

DEVICE NUMBER
AND LOCATION

a. 6.9-kV Circuit Breakers

Reactor Recirc. Pump 1A
Penetration 1EE01E
Penetration conductor size 1/c-1000 MCM per Ø

Normal Operation Protection

6.9-kV Swgr. Location 121, AH, AV (R,C); El 781 ft.
Two identical circuit breakers in series
with identical protective relays.
Westinghouse Type COM-5 and CO-11 relays for phase overcurrent protection
Westinghouse Type SSC-T relays for ground fault protection

Low Frequency Operation Protection

6.9-kV Swgr. Location 121, AH, AV (R,C); El. 781 ft. Breaker 2A (1RR01ED) with three GE Type IJCV relays for phase overcurrent with voltage restraint. Relays are located in LFMG relay panel B33-P001A.

Reactor Recirc. Pump 1B
Penetration 1EE02E
Penetration conductor size 1/c-1000 MCM per Ø

Normal Operation Protection

6.9-kV Swgr. Location 105, AH (R,C); El 781 ft.
Two identical circuit breakers in series with
identical protective relays.
Westinghouse Type COM-5 and CO-11 relays for phase overcurrent protection
Westinghouse Type SSC-T relays for ground fault protection

Low Frequency Operation Protection

6.9-kV Swgr. Location 105, AH (R,C); El 781 ft. Breaker 2B (1RR02ED) with three GE Type IJCV relays for phase overcurrent with voltage restraint. Relays are located in LFMG relay panel B33-P001B.

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

b. Lower Voltage Circuit Breakers

1. Type Molded Case

Auxiliary Building MCC 1F (1AP41E)
Location 119, Y (R,C); El 762 ft

Each Compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
1E	RLC118 1LL18EA	1EE03E
1D	RLC116 1LL16EA	1EE03E
3D	Sump Pump 1A 1RE03PA	1EE05E
5A	Sump Pump 1RE05PA	1EE05E
5B	Sump Pump 1A 1RF03PA	1EE05E
5C	Sump Pump 1RF07PA	1EE05E
8B	RWCU Vlv Mtr 1G33-F102	1EE05E
7A	RWCU Vlv Mtr 1G33-F031	1EE05E
7B	RWCU Vlv Mtr 1G33-F042A	1EE05E
7C	RWCU Vlv Mtr 1G33-F044	1EE05E
2A	Head Vent Vlv 1B21-F001	1EE07E
2B	Head Vent Vlv 1B21-F005	1EE07E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1F (1AP41E) (Continued)

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
2C	Wtr Press Cont VLV 1C11-F003	1EE07E
3C	Space Htr 1B33-C001A	1EE07E
4C	Suct Vlv Mtr 1B33-F023A	1EE07E
4A	WINCH 1F42-E001	1EE05E
6B	Disc DC Vlv 1B33-F067A	1EE07E
8A	RWCU Suct VLV 1G33-F100	1EE07E
1B	1F15-E005	1EE07E
8C	J/B 1HC69G	1EE07E
8D	Shield Door 1HC71G	1EE07E
4B	Oil Pump Mtr 1B33-D003A	1EE36E
5D	Fan Motor 1B33-D003A	1EE36E
3B	Fan Motor IVR12C	1EE36E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1F (1AP41E) (Continued)

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
1F	SRM/IRM	1EE05E
	Drives	1EE05E
	1H22-P008	1EE05E
		1EE05E
		1EE05E
		1EE05E
		1EE05E
		1EE05E
		1EE05E
		1EE05E
		1EE05E
		1EE05E
6C	1WØ5JX	1EE07E
		1EE07E
	1WØ05JY	1EE07E
		1EE07E
	1WØ05JU	1EE07E
		1EE07E
9A	1VP01CE	1EE05E
9B	1VP01CG	1EE05E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1G (1AP42E)
Location 106, Y (R,C); El 762 ft

Each Compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
1E	Ltg Pnl 117 1LL7EA	1EE04E
1D	Ltg Pnl 115 1LL15EA	1EE04E
4A	Sump Pump 1RE03PB	1EE06E
4C	Sump Pump 1RF03PB	1EE06E
4D	Sump Pump 1RF07PB	1EE06E
6D	Vlv 1G33-F042B	1EE06E
5B	Agitator 1G36-A001	1EE06E
4B	Sump Pump 1RE05PB	1EE06E
5A	Fan 1B33-D003B	1EE06E
1B	Hyd Sys 1F42-D002	1EE08E
3A	Vent Valve 1B21-F002	1EE08E
2D	Space Htr 1B33-C001B	1EE08E
3C	Suct Valve 1B33-F023B	1EE08E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1G (1AP42E) (Continued)

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
6A	Disch Vlv 1B33-F067B	1EE08E
3B	Oil Pump 1B33-D003B	1EE04E
5D	Demin Pump 1G36-C001B	1EE08E
5C	Agitator 1G36-A002	1EE08E
6B	1WO05JT	1EE06E
7A	1VP01CF	1EE06E
7B	1VP090B	1EE06E
7C	1VP091B	1EE06E
8A	1VP01CH	1EE06E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1A2 (1AP73E)
Location 121, V (R,C); El 781 ft

Each Compartment listed below has two identical circuit breakers in series

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
1B	RHR Valve 1E12-F037A	1EE09E
13C	1IA012B	1EE09E

Auxiliary Building MCC 1A1 (1AP72E)
Location 121, Y (R,C); El 781 ft

Each Compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
2BL	SLC 158 1LL58EA	1EE03E
1D	Drywell Fan 1VP01CA	1EE05E
3B	Drywell Fan 1VP01CC	1EE05E
1C	Comb Gas Compressor 1HG02CA	1EE09E
3A	Stby Liq Pmp 1C41-C001A	1EE09E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1A3 (1AP74E)
Location 121, V (R,C); El 781 ft

Each Compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
5C	Sample Pump 1PS08P	1EE07E
4B	Sample Pump 1PS06P	1EE07E
4D	Sample Pump 1PS07P	1EE07E
2D	Sample Pump 1PS05P	1EE07E
13B	Shutoff Valve 1SM002A	1EE09E
13A	Shutoff Valve 1SM001A	1EE09E
13C	Spray Valve 1E12-F042A	1EE09E
1B	Isol Valve 1FP078	1EE09E
14D	Supply Fan 1VR08C	1EE37E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1A4 (1AP93E)
Location 121, V Y (R,C); El 781 ft

Each Compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
10B	Spray Valve 1E12-F028A	1EE09E
7C	Isol Valve 1CY021	1EE09E
10A	Suct Valve 1HG009A	1EE09E
9A	Isol Valve 1SX095A	1EE09E
9B	Isol Valve 1CC057	1EE09E
9C	Isol Valve 1CC128	1EE09E
10C	Outlet Valve 1C41-F001A	1EE09E
7A	Isol Valve 1SX089A	1EE37E
7B	Isol Valve 1SX096A	1EE37E
1C	1W0551A	1EE37E
8B	1W0552A	1EE37E
8C	1C11-F370	1EE05E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1B1 (1AP75E)
Location 105, X (R,C); El 781 ft

Each Compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
2C	Cool Fan 1VP01CB	1EE06E
3A	Cool Fan 1VP01CD	1EE06E
4A	Stby Pump 1C41-C001B	1EE10E
2A	H2 Compr 1HG02CB	1EE11E
2B	Supply Fan 1VR11C	1EE11E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1B2 (1AP76E)
Location 106, V (R,C); El 781 ft

Each Compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
11C	Isol Valve 1C41-F001B	1EE10E
2B	Inlet Valve 1CC068	1EE10E
1B	Inlet Valve 1CC065	1EE10E
2C	Outlet Valve 1CC070	1EE10E
2A	Outlet Valve 1CC067	1EE10E
10C	Sup Pool Vlv 1E12-F073A	1EE11E
11B	Isol Valve 1SX095B	1EE11E
10A	Suct Valve 1HG009B	1EE11E
11A	Sup Pool Vlv 1E12-F073B	1EE11E
14B	Spray Valve 1E12-F028B	1EE11E
10B	Upper Pool Univ 1E12-F037B	1EE11E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1B3 (1AP77E)
Location 106, V (R,C); El 781 ft

Each Compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
2A	Isol Valve 1CC050	1EE10E
2B	Isol Valve 1CC053	1EE10E
3B	Isol Valve 1CC071	1EE10E
3C	Isol Valve 1CC074	1EE10E
3A	Isol Valve 1CC060	1EE10E
4A	Isol Valve 1CC127	1EE10E
4C	Isol Valve 1CY017	1EE10E
5A	Isol Valve 1CY020	1EE10E
5B	Isol Valve 1FC007	1EE10E
5C	Isol Valve 1FC037	1EE10E
10A	Isol Valve 1E51-F063	1EE11E
14A	RCIC Valve 1E51-F076	1EE11E
10B	Isol Valve 1G33-F001	1EE11E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1B3 (1AP77E) (Continued)

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
10C	Isol Valve 1G33-F028	1EE11E
11A	Isol Valve 1G33-F040	1EE11E
11B	Isol Valve 1G33-F053	1EE1E
8A	Isol Valve 1E12-F009	1EE11E
8C	Spray Valve 1E12-F042B	1EE11E
7B	Isol Valve OMC010	1EE11E
7C	Isol Valve 1B21-F016	1EE11E
12B	Isol Valve 1SX089B	1EE11E
13A	Isol Valve 1SX096B	1EE11E
13B	Isol Valve 1VQ006B	1EE11E
7A	Isol Valve 1IA013B	1EE11E
14B	Isol Valve 1WØ001B	1EE11E
14C	Isol Valve 1WØ002B	1EE11E
13C	Isol Valve 1VR002B	1EE11E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1B3 (1AP77E) (Continued)

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
6A	Isol Valve 1FP052	1EE11E
6B	Isol Valve 1FP053	1EE11E
11C	Isol Valve 1FP079	1EE11E

Auxiliary Building MCC 1B4 (1AP94E)
Location 105, X (R,C); El 781 ft

Each Compartment listed below has two identical circuit breakers in series.

8C	Shutoff Valve 1SM001B	1EE11E
9A	Shutoff Valve 1SM002B	1EE11E
9B	Isol Valve 1FP050	1EE11E
7A	Isol Valve 1VP005A	1EE11E
7B	Isol Valve 1VP005B	1EE11E
7C	Isol Valve 1VP014A	1EE11E
8A	Isol Valve 1VP014B	1EE11E
1B	1WO552B	1EE11E
10A	1WO551B	1EE11E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1H (1AP95E)
Location 119, Z (R, C); El 762 ft

Each Compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
7D	Welding 1EW02E	1EE03E
2C	Supp Pool Fill Valve 1SM004	1EE05E
3C	RWCU 1WX01PA	1EE05E
2A	RWCU 1G33-F107	1EE05E
3A	RWCU 1G36-C001A	1EE05E
7B	Monorail 1B21-E300	1EE05E
7F	Hatch Shield Door 1HC68G	1EE07E
5A	Circuit 7 1F42-E001	1EE07E
6B	Refuel Plat 1F15-E003	1EE05E
4A	Air Hand Fan 1WØ05SF	1EE07E
4B	Air Hand Fan 1WØ05SH	1EE07E
4D	Air Hand Fan 1WØ05SM	1EE07E
4C	Air Hand Fan 1WØ05SK	1EE07E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1H (1AP95E) (Continued)

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
3D	Air Hand Fan 1WØ05SB	1EE05E
6A	Oil Pump 1B33-D003A	1EE36E
2B	Mixing Htr 1C41-D003	1EE36E
3B	Tnk Htr 1C41-D002	1EE36E
7A	Fan Mtr 1B33-D003A	1EE36E
7C	Area Coolers	1EE07E 1EE07E 1EE07E 1EE07E 1EE07E 1EE07E 1EE07E 1EE07E
1B	1VP090A	1EE05E
1C	1VP091A	1EE05E
1D	1F15-E003EC	1EE07E
7E	1F15-E003EA	1EE07E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1I (1AP96E)
Location 167, Z (R,C); El 762 ft

Each Compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
6C	Welding 1EW03E	1EE04E
6B	Welding 1EW15EA thru EF	1EE04E
1B	Drn Valve 1G33-F101	1EE06E
1D	Tank Pump 1WX01PB	1EE06E
6E	Jib Crane 1HC65G	1EE06E
3B	Fan Motor 1B33-D003B	1EE06E
5C	Oil Pump 1B33-D003B	1EE06E
1C	Precoat Pump 1G36-C002	1EE06E
6F	Crane 1B33-E300	1EE06E
2A	Fan Motor 1WØ05SC	1EE06E
5B	Suct Valve 1G33-F106	1EE08E
5A	Bypass Valve 1G33-F104	1EE08E
2B	Fan Motor 1WØ05SG	1EE08E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Auxiliary Building MCC 1I (1AP96E) (Continued)

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
2C	Fan Motor 1WØ05SJ	1EE08E
3A	Fan Motor 1WØ05SN	1EE08E
2D	Fan Motor 1WØ05SL	1EE08E
6A	Area Coolers 1WØ05SR 1WØ05SS	1EE08E 1EE08E 1EE08E 1EE08E 1EE08E 1EE08E 1EE08E 1EE08E

125-V DC MCC 1D (1DC15E)
Location 25, U (?,C); El 781 ft

Each compartment listed below has two identical circuit breakers in series.

COMPT	EQUIPMENT SERVICE	PENETRATION NUMBER
4C	Emerg Lighting 1LL63E	1EE04E

Remove Entire Page

TABLE 3.8.4.1-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

DEVICE NUMBER
AND LOCATION

2. Type Switchgear

Polar Crane - Penetration 1EE03E

Penetration conductor size 2-350MCM per Ø

Unit Substation 1A Compt. 7B (R,C); El 781 ft

Primary Protection

BBE Solid State Trip Device Type SS14

Current Sensor	600A
L.T. Setting	1.1 X TAP
ST Setting	10 X TAP

Secondary Protection

Westinghouse Type CO-8 Relay

in Safety Systems with a bypass device(s) integral with the motor Starter

ELECTRICAL POWER SYSTEMS

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

LIMITING CONDITION FOR OPERATION

3.8.4.2 The thermal overload protection of each valve ~~shown in Table 3.8.4.2-1~~ shall be bypassed continuously ~~by an OPERABLE bypass device integral with the motor starter.~~ for those directions for which the valve performs an active safety function.

APPLICABILITY: Whenever the motor operated valve is required to be OPERABLE.

ACTION:

in the valves safety direction(s),

With the thermal overload protection for one or more of the above required valves not bypassed continuously ~~by an OPERABLE integral bypass device,~~ continuously bypass the thermal overload within 8 hours or declare the affected valve(s) inoperable and apply the appropriate ACTION statement(s) for the affected system(s).

affected

SURVEILLANCE REQUIREMENTS

in the valves' safety direction(s):

4.8.4.2.1 The thermal overload protection for the above required valves shall be verified to be bypassed continuously ~~by an OPERABLE integral bypass device by verifying that the thermal overload protection is bypassed for those thermal overloads which are continuously bypassed and temporarily placed in force only when the valve motors are undergoing periodic or maintenance testing:~~

a. At least once per 18 months ~~for those thermal overloads which are continuously bypassed and temporarily placed in force only when the valve motors are undergoing periodic or maintenance testing.~~ , and

b. Following maintenance on the motor starter.

4.8.4.2.2 The thermal overload protection for the above required valves ~~which are continuously bypassed and temporarily placed in force only when the valve motor is undergoing periodic or maintenance testing~~ shall be verified to be bypassed following periodic or maintenance testing during which the thermal overload protection was temporarily placed in force.

in the valves' safety direction(s)

Remove Entire Page

TABLE 3.8.4.2-1

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NO.	BYPASS	DIRECTION	SYSTEM(S) AFFECTED
1B21-F016	Continuous	Close	Nuclear Boiler
1B21-F019	Continuous	Close	Nuclear Boiler
1B21-F065A	Continuous	Open/Close	Nuclear Boiler
1B21-F065B	Continuous	Open/Close	Nuclear Boiler
1B21-F067A	Continuous	Close	Nuclear Boiler
1B21-F067B	Continuous	Close	Nuclear Boiler
1B21-F067C	Continuous	Close	Nuclear Boiler
1B21-F067D	Continuous	Close	Nuclear Boiler
1B21-F068	Continuous	Close	Nuclear Boiler
1B21-F098A	Continuous	Close	Nuclear Boiler
1B21-F098B	Continuous	Close	Nuclear Boiler
1B21-F098C	Continuous	Close	Nuclear Boiler
1B21-F098D	Continuous	Close	Nuclear Boiler
1CC049	Continuous	Close	Component Cool Water
1CC050	Continuous	Close	Component Cool Water
1CC053	Continuous	Close	Component Cool Water
1CC054	Continuous	Close	Component Cool Water
1CC057	Continuous	Close	Component Cool Water
1CC060	Continuous	Close	Component Cool Water
1CC065	Continuous	Close	Component Cool Water
1CC067	Continuous	Close	Component Cool Water
1CC068	Continuous	Close	Component Cool Water
1CC070	Continuous	Close	Component Cool Water
1CC071	Continuous	Open/Close	Component Cool Water
1CC072	Continuous	Open/Close	Component Cool Water
1CC073	Continuous	Open/Close	Component Cool Water
1CC074	Continuous	Open/Close	Component Cool Water
1CC075A	Continuous	Close	Component Cool Water
1CC075B	Continuous	Close	Component Cool Water
1CC076A	Continuous	Close	Component Cool Water
1CC076B	Continuous	Close	Component Cool Water
1CC127	Continuous	Close	Component Cool Water
1CC128	Continuous	Close	Component Cool Water
1CY016	Continuous	Close	Cycled Condensate
1CY017	Continuous	Close	Cycled Condensate
1CY020	Continuous	Close	Cycled Condensate
1CY021	Continuous	Close	Cycled Condensate
1C41-F001A	Continuous	Open	Standby Liquid Control
1C41-F001B	Continuous	Open	Standby Liquid Control

Remove Entire Page

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NO.	BYPASS	DIRECTION	SYSTEM(S) AFFECTED
1E12-F003A	Continuous	Open	Residual Heat Removal
1E12-F003B	Continuous	Open	Residual Heat Removal
1E12-F004A	Continuous	Open/Close	Residual Heat Removal
1E12-F004B	Continuous	Open/Close	Residual Heat Removal
1E12-F006A	Continuous	Open/Close	Residual Heat Removal
1E12-F006B	Continuous	Open/Close	Residual Heat Removal
1E12-F008	Continuous	Open/Close	Residual Heat Removal
1E12-F009	Continuous	Close	Residual Heat Removal
1E12-F011A	Continuous	Open/Close	Residual Heat Removal
1E12-F011B	Continuous	Close	Residual Heat Removal
1E12-F014A	Continuous	Open/Close	Residual Heat Removal
1E12-F014B	Continuous	Open/Close	Residual Heat Removal
1E12-F021	Continuous	Close	Residual Heat Removal
1E12-F023	Continuous	Open/Close	Residual Heat Removal
1E12-F024A	Continuous	Open/Close	Residual Heat Removal
1E12-F024B	Continuous	Open/Close	Residual Heat Removal
1E12-F026A	Continuous	Close	Residual Heat Removal
1E12-F026B	Continuous	Close	Residual Heat Removal
1E12-F027A	Continuous	Open/Close	Residual Heat Removal
1E12-F027B	Continuous	Open/Close	Residual Heat Removal
1E12-F028A	Continuous	Open/Close	Residual Heat Removal
1E12-F028B	Continuous	Open/Close	Residual Heat Removal
1E12-F037A	Continuous	Open/Close	Residual Heat Removal
1E12-F037B	Continuous	Open/Close	Residual Heat Removal
1E12-F040	Continuous	Close	Residual Heat Removal
1E12-F042A	Continuous	Open/Close	Residual Heat Removal
1E12-F042B	Continuous	Open/Close	Residual Heat Removal
1E12-F042C	Continuous	Open/Close	Residual Heat Removal
1E12-F047A	Continuous	Open	Residual Heat Removal
1E12-F047B	Continuous	Open	Residual Heat Removal
1E12-F048A	Continuous	Open/Close	Residual Heat Removal
1E12-F048B	Continuous	Open/Close	Residual Heat Removal
1E12-F049	Continuous	Close	Residual Heat Removal
1E12-F052A	Continuous	Close	Residual Heat Removal
1E12-F052B	Continuous	Close	Residual Heat Removal
1E12-F053A	Continuous	Open/Close	Residual Heat Removal
1E12-F053B	Continuous	Open/Close	Residual Heat Removal
1E12-F064A	Continuous	Open/Close	Residual Heat Removal
1E12-F064C	Continuous	Open/Close	Residual Heat Removal
1E12-F064B	Continuous	Open/Close	Residual Heat Removal
1E12-F068A	Continuous	Open	Residual Heat Removal
1E12-F068B	Continuous	Open	Residual Heat Removal
1E12-F073A	Continuous	Open/Close	Residual Heat Removal
1E12-F073B	Continuous	Open/Close	Residual Heat Removal

Remove Entire Page

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NO.	BYPASS	DIRECTION	SYSTEM(S) AFFECTED
1E12-F074A	Continuous	Open/Close	Residual Heat Removal
1E12-F074B	Continuous	Open/Close	Residual Heat Removal
1E12-F087A	Continuous	Close	Residual Heat Removal
1E12-F087B	Continuous	Close	Residual Heat Removal
1E12-F094	Continuous	Open/Close	Residual Heat Removal
1E12-F096	Continuous	Open/Close	Residual Heat Removal
1E12-F105	Continuous	Open/Close	Residual Heat Removal
1E21-F001	Continuous	Open/Close	Low Pressure Core Spray
1E21-F005	Continuous	Open/Close	Low Pressure Core Spray
1E21-F011	Continuous	Open/Close	Low Pressure Core Spray
1E21-F012	Continuous	Close	Low Pressure Core Spray
1E22-F001	Continuous	Open/Close	High Press Core Spray
1E22-F004	Continuous	Open/Close	High Press Core Spray
1E22-F010	Continuous	Close	High Press Core Spray
1E22-F011	Continuous	Close	High Press Core Spray
1E22-F012	Continuous	Open/Close	High Press Core Spray
1E22-F015	Continuous	Open/Close	High Press Core Spray
1E22-F023	Continuous	Close	High Press Core Spray
1E32-F001A	Continuous	Close	MSIV-Leakage Control System
1E32-F001E	Continuous	Close	MSIV-Leakage Control System
1E32-F001J	Continuous	Close	MSIV-Leakage Control System
1E32-F001N	Continuous	Close	MSIV-Leakage Control System
1E32-F002A	Continuous	Close	MSIV-Leakage Control System
1E32-F002E	Continuous	Close	MSIV-Leakage Control System
1E32-F002J	Continuous	Close	MSIV-Leakage Control System
1E32-F002N	Continuous	Close	MSIV-Leakage Control System
1E32-F003A	Continuous	Close	MSIV-Leakage Control System
1E32-F003E	Continuous	Close	MSIV-Leakage Control System
1E32-F003J	Continuous	Close	MSIV-Leakage Control System
1E32-F003N	Continuous	Close	MSIV-Leakage Control System
1E32-F006	Continuous	Close	MSIV-Leakage Control System
1E32-F007	Continuous	Close	MSIV-Leakage Control System
1E32-F008	Continuous	Close	MSIV-Leakage Control System
1E32-F009	Continuous	Close	MSIV-Leakage Control System
1E51-C002E	Continuous	Open/Close	Reac Core Isol Cool
1E51-F010	Continuous	Open/Close	Reac Core Isol Cool
1E51-F013	Continuous	Open/Close	Reac Core Isol Cool
1E51-F019	Continuous	Open/Close	Reac Core Isol Cool
1E51-F022	Continuous	Open/Close	Reac Core Isol Cool
1E51-F031	Continuous	Open/Close	Reac Core Isol Cool
1E51-F045	Continuous	Open/Close	Reac Core Isol Cool
1E51-F046	Continuous	Open/Close	Reac Core Isol Cool

Remove Entire Page

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NO.	BYPASS	DIRECTION	SYSTEM(S) AFFECTED
1E51-F059	Continuous	Open/Close	Reac Core Isol Cool
1E51-F063	Continuous	Open/Close	Reac Core Isol Cool
1E51-F064	Continuous	Open/Close	Reac Core Isol Cool
1E51-F068	Continuous	Open/Close	Reac Core Isol Cool
1E51-F076	Continuous	Open/Close	Reac Core Isol Cool
1E51-F077	Continuous	Open/Close	Reac Core Isol Cool
1E51-F078	Continuous	Open/Close	Reac Core Isol Cool
1E51-F095	Continuous	Open/Close	Reac Core Isol Cool
1E51-C002E	Continuous	Open/Close	Reac Core Isol Cool
1FC007	Continuous	Close	Fuel Pool Cool & Clean
1FC008	Continuous	Close	Fuel Pool Cool & Clean
1FC011A	Continuous	Open/Close	Fuel Pool Cool & Clean
1FC011B	Continuous	Open/Close	Fuel Pool Cool & Clean
1FC015A	Continuous	Open/Close	Fuel Pool Cool & Clean
1FC015B	Continuous	Open/Close	Fuel Pool Cool & Clean
1FC016A	Continuous	Close	Fuel Pool Cool & Clean
1FC016B	Continuous	Close	Fuel Pool Cool & Clean
1FC024A	Continuous	Close	Fuel Pool Cool & Clean
1FC024B	Continuous	Close	Fuel Pool Cool & Clean
1FC026A	Continuous	Open/Close	Fuel Pool Cool & Clean
1FC026B	Continuous	Open/Close	Fuel Pool Cool & Clean
1FC036	Continuous	Close	Fuel Pool Cool & Clean
1FC037	Continuous	Close	Fuel Pool Cool & Clean
1FP050	Continuous	Close	Fire Protection
1FP051	Continuous	Close	Fire Protection
1FP052	Continuous	Close	Fire Protection
1FP053	Continuous	Close	Fire Protection
1FP054	Continuous	Close	Fire Protection
1FP078	Continuous	Close	Fire Protection
1FP079	Continuous	Close	Fire Protection
1FP092	Continuous	Close	Fire Protection
1G33-F001	Continuous	Close	React Wtr Cleanup
1G33-F004	Continuous	Close	React Wtr Cleanup
1G33-F028	Continuous	Close	React Wtr Cleanup
1G33-F034	Continuous	Close	React Wtr Cleanup
1G33-F039	Continuous	Close	React Wtr Cleanup
1G33-F040	Continuous	Close	React Wtr Cleanup
1G33-F053	Continuous	Close	React Wtr Cleanup
1G33-F054	Continuous	Close	React Wtr Cleanup
1HG001	Continuous	Open	H2 Recombining
1HG004	Continuous	Open/Close	H2 Recombining
1HG005	Continuous	Open/Close	H2 Recombining
1HG008	Continuous	Open/Close	H2 Recombining

Remove Entire Page

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NO.	BYPASS	DIRECTION	SYSTEM(S) AFFECTED
1HG009A	Continuous	Open/Close	H2 Recombining
1HG009B	Continuous	Open/Close	H2 Recombining
1IA012A	Continuous	Open/Close	Instrument Air
1IA012B	Continuous	Open/Close	Instrument Air
1IA013A	Continuous	Open/Close	Instrument Air
1IA013B	Continuous	Open/Close	Instrument Air
0MC009	Continuous	Close	Make Up Condensate Storage
0MC010	Continuous	Close	Make Up Condensate Storage
1SF001	Continuous	Close	Suppression Pool & Cleanup
1SF002	Continuous	Close	Suppression Pool & Cleanup
1SF004	Continuous	Close	Suppression Pool & Cleanup
1SM001A	Continuous	Open	Suppression Pool Makeup
1SM001B	Continuous	Open	Suppression Pool Makeup
1SM002A	Continuous	Open	Suppression Pool Makeup
1SM002B	Continuous	Open	Suppression Pool Makeup
1SX003A	Continuous	Open	Shutdown Service Water
1SX003B	Continuous	Open	Shutdown Service Water
1SX003C	Continuous	Open	Shutdown Service Water
1SX004A	Continuous	Open	Shutdown Service Water
1SX004B	Continuous	Open	Shutdown Service Water
1SX004C	Continuous	Open	Shutdown Service Water
1SX006C	Continuous	Open	Shutdown Service Water
1SX008A	Continuous	Open/Close	Shutdown Service Water
1SX008B	Continuous	Open/Close	Shutdown Service Water
1SX008C	Continuous	Open/Close	Shutdown Service Water
1SX011A	Continuous	Open/Close	Shutdown Service Water
1SX011B	Continuous	Open/Close	Shutdown Service Water
1SX012A	Continuous	Open/Close	Shutdown Service Water
1SX012B	Continuous	Open/Close	Shutdown Service Water
1SX013D	Continuous	Open/Close	Shutdown Service Water
1SX013E	Continuous	Open/Close	Shutdown Service Water
1SX013F	Continuous	Open/Close	Shutdown Service Water
1SX014A	Continuous	Close	Shutdown Service Water
1SX014B	Continuous	Close	Shutdown Service Water
1SX014C	Continuous	Close	Shutdown Service Water
1SX016A	Continuous	Open/Close	Shutdown Service Water
1SX016B	Continuous	Open/Close	Shutdown Service Water
1SX017A	Continuous	Open/Close	Shutdown Service Water
1SX017B	Continuous	Open/Close	Shutdown Service Water

Remove Entire Page

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NO.	BYPASS	DIRECTION	SYSTEM(S) AFFECTED
1SX020A	Continuous	Close	Shutdown Service Water
1SX020B	Continuous	Close	Shutdown Service Water
1SX062A	Continuous	Open/Close	Shutdown Service Water
1SX062B	Continuous	Open/Close	Shutdown Service Water
1SX063A	Continuous	Open	Shutdown Service Water
1SX063B	Continuous	Open	Shutdown Service Water
1SX071A	Continuous	Open/Close	Shutdown Service Water
1SX071B	Continuous	Open/Close	Shutdown Service Water
1SX073A	Continuous	Open/Close	Shutdown Service Water
1SX073B	Continuous	Open/Close	Shutdown Service Water
1SX074A	Continuous	Open/Close	Shutdown Service Water
1SX074B	Continuous	Open/Close	Shutdown Service Water
1SX076A	Continuous	Open/Close	Shutdown Service Water
1SX076B	Continuous	Open/Close	Shutdown Service Water
1SX082A	Continuous	Close	Shutdown Service Water
1SX082B	Continuous	Close	Shutdown Service Water
1SX088A	Continuous	Open/Close	Shutdown Service Water
1SX088B	Continuous	Open/Close	Shutdown Service Water
1SX089A	Continuous	Open/Close	Shutdown Service Water
1SX089B	Continuous	Open/Close	Shutdown Service Water
1SX095A	Continuous	Open	Shutdown Service Water
1SX095B	Continuous	Open	Shutdown Service Water
1SX096A	Continuous	Open/Close	Shutdown Service Water
1SX096B	Continuous	Open/Close	Shutdown Service Water
1SX097A	Continuous	Open/Close	Shutdown Service Water
1SX097B	Continuous	Open/Close	Shutdown Service Water
1SX105A	Continuous	Open/Close	Shutdown Service Water
1SX105B	Continuous	Open/Close	Shutdown Service Water
1SX107A	Continuous	Open/Close	Shutdown Service Water
1SX107B	Continuous	Open/Close	Shutdown Service Water
1SX173A	Continuous	Open/Close	Shutdown Service Water
1SX173B	Continuous	Open/Close	Shutdown Service Water
2SX076A	Continuous	Open/Close	Shutdown Service Water
2SX076B	Continuous	Open/Close	Shutdown Service Water
2SX107A	Continuous	Open/Close	Shutdown Service Water
2SX107B	Continuous	Open/Close	Shutdown Service Water
1VP004A	Continuous	Close	Drywell Cooling - Plant Chilled Water
1VP004B	Continuous	Close	Drywell Cooling - Plant Chilled Water

Remove Entire Page

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NO.	BYPASS	DIRECTION	SYSTEM(S) AFFECTED
1VP005A	Continuous	Close	Drywell Cooling - Plant Chilled Water
1VP005B	Continuous	Close	Drywell Cooling - Plant Chilled Water
1VP014A	Continuous	Close	Drywell Cooling - Plant Chilled Water
1VP014B	Continuous	Close	Drywell Cooling - Plant Chilled Water
1VP015A	Continuous	Close	Drywell Cooling - Plant Chilled Water
1VP015B	Continuous	Close	Drywell Cooling - Plant Chilled Water
1VQ006A	Continuous	Close	Drywell Purge - Contain HVAC
1VQ006B	Continuous	Close	Drywell Purge - Contain HVAC
1VR002A	Continuous	Close	Drywell Purge - Contain HVAC
1VR002B	Continuous	Close	Drywell Purge - Contain HVAC
1WO001A	Continuous	Close	Drywell Cooling - Plant Chilled Water
1WO001B	Continuous	Close	Drywell Cooling - Plant Chilled Water
1WO002A	Continuous	Close	Drywell Cooling - Plant Chilled Water
1WO002B	Continuous	Close	Drywell Cooling - Plant Chilled Water
1WO551A	Continuous	Close	Drywell Cooling - Plant Chilled Water
1WO551B	Continuous	Close	Drywell Cooling - Plant Chilled Water
1WO552A	Continuous	Close	Drywell Cooling - Plant Chilled Water
1WO552B	Continuous	Close	Drywell Cooling - Plant Chilled Water

142

ELECTRICAL POWER SYSTEMS

REACTOR PROTECTION SYSTEM ELECTRIC POWER MONITORING

LIMITING CONDITION FOR OPERATION

3.8.4.3 One RPS electric power monitoring channel for each inservice RPS special solenoid power supply or alternate power supply shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

With the RPS special solenoid electric power monitoring channel for an inservice RPS special solenoid power supply or alternate power supply inoperable, restore the power monitoring channel to OPERABLE status within 30 minutes or remove the associated RPS special solenoid power supply or alternate power supply from service.

SURVEILLANCE REQUIREMENTS

4.8.4.3 The above specified RPS special solenoid electric power monitoring channels shall be determined OPERABLE:

a. At least once per six months by performance of a CHANNEL FUNCTIONAL TEST, and

b. At least once per 18 months by demonstrating the OPERABILITY of overvoltage, undervoltage and underfrequency protective instrumentation by performance of a CHANNEL CALIBRATION including simulated automatic actuation of the protective relays, tripping logic and output circuit breakers and verifying the following setpoints.

	EPA-INVERTER A	EPA-INVERTER B
1. Overvoltage	≤ 134.2 + 0,-3 VAC	≤ 133.6 + 0, - 3 VAC
2. Undervoltage	≥ 114.2-0, + 3 VAC	≥ 113.2 - 0, + 3 VAC
3. Underfrequency	≥ 57 - 0 + 1.2 Hz	≥ 57 - 0 + 1.2 Hz

INSTRUMENTATION

BASES

3/4.3.7.11 MAIN CONDENSER OFFGAS TREATMENT SYSTEM EXPLOSIVE GAS MONITORING INSTRUMENTATION

The main condenser offgas treatment system explosive gas monitoring instrumentation is provided to monitor and control the concentrations of potentially explosive gas mixtures in the main condenser offgas treatment system.

The intent of the * note attached to the CHANNEL CALIBRATION requirement is to specify that the CHANNEL CALIBRATION is to be performed using at least two separate gas samples of different, specific hydrogen concentrations appropriate for the sensor range. The balance of the sample gas mixture (normally nitrogen) is not necessarily restricted purely to nitrogen but must be in accordance with the requirements or recommendations provided by the manufacturer of the explosive gas monitoring instrumentation.

3/4.3.8 TURBINE OVERSPEED PROTECTION SYSTEM

Deleted

~~This specification is provided to ensure that the turbine overspeed protection system instrumentation and the turbine speed control valves are OPERABLE and will protect the turbine from excessive overspeed. Protection from turbine excessive overspeed is required since excessive overspeed of the turbine could generate potentially damaging missiles which could impact and damage safety related components, equipment or structures.~~

3/4.3.9 PLANT SYSTEMS ACTUATION INSTRUMENTATION

The plant systems actuation instrumentation is provided to initiate action to mitigate the consequences of accidents that are beyond the ability of the operator to control. The LPCI mode of the RHR system is automatically initiated on a high drywell pressure signal and/or a low reactor water level, level 1, signal. The containment spray system will then actuate automatically following high drywell and high containment pressure signals. Negative barometric pressure

3/4.4.6 PRESSURE/TEMPERATURE LIMITS (Continued)

The reactor vessel materials have been tested to determine their initial RT_{NDT}. The results of these tests are shown in Table B 3/4.4.6-1. Reactor operation and resultant fast neutron (E greater than 1 MeV) irradiation will cause an increase in the RT_{NDT} of the core beltline region. Therefore, an adjusted reference temperature, based upon the fluence, nickel content and copper content of the material in question, can be predicted using Regulatory Guide 1.99, "Radiation Embrittlement of Reactor Vessel Materials," Revision 2, May 1988.

The pressure/temperature limit curve, Figure 3.4.6.1-1, curves A, B, and C, includes an assumed shift in RT_{NDT} for the conditions at 12 Effective Full Power Years. The actual shift in RT_{NDT} of the vessel material will be established periodically during operation by removing and evaluating, in accordance with ASTM E185 and 10 CFR 50, Appendix H, irradiated reactor vessel material specimens installed near the inside wall of the reactor vessel in the core area. The irradiated specimens can be used to predict reactor vessel material transition temperature shift. Flux wires which were removed after the first fuel cycle and will be removed at later intervals with the surveillance specimens are analyzed and provide an improved neutron fluence estimate for the reactor vessel. This data is then used to modify Bases Figure B 3/4.4.6-1 and predictions of reactor vessel material transition temperature shift per Regulatory Guide 1.99, Revision 2. The operating limit curves of Figure 3.4.6.1-1 have been and will be adjusted, as required, on the basis of the specimen data and the recommendations of Regulatory Guide 1.99, Revision 2.

The pressure-temperature limit lines shown in Figures 3.4.6.1-1, curves C and A for reactor criticality and for inservice leak and hydrostatic testing have been provided to assure compliance with the minimum temperature requirements of Appendix G to 10 CFR Part 50 for reactor criticality and for inservice leak and hydrostatic testing.

~~The number of reactor vessel irradiation surveillance capsules and the frequencies for removing and testing the specimens in these capsules are provided in Table 4.4.6.1-1 to assure compliance with the requirements of Appendix H to 10 CFR 50.~~

3/4.4.7 MAIN STEAM LINE ISOLATION VALVES

Double isolation valves are provided on each of the main steam lines to minimize the potential leakage paths from the containment in case of a line break. Only one valve in each line is required to maintain the integrity of the containment; however, single failure considerations require that two valves be OPERABLE. The surveillance requirements are based on the operating history of this type valve. The maximum closure time has been selected to contain fission products and to ensure the core is not uncovered following line breaks. The minimum closure time is consistent with the assumptions in the safety analyses to prevent pressure surges.

3/4.6.1.4 MSIV LEAKAGE CONTROL SYSTEM

Calculated doses resulting from the maximum leakage allowance for the main stream line isolation valves in the postulated LOCA situations would be a small fraction of the 10 CFR 100 guidelines, provided the main steam line system from the isolation valves up to and including the MSIV-LCS motor operated boundary valve remains intact Operating experience has indicated that degradation has occasionally occurred in the leaktightness of the MSIV's such that the specified leakage requirements have not always been maintained continuously. The requirement for the leakage control system will reduce the untreated leakage from the MSIV's when isolation of the primary system and containment is required.

3/4.6.1.5 CONTAINMENT STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment will be maintained comparable to the original design standards for the life of the unit. Structural integrity is required to ensure that the containment will withstand the maximum pressure of 15 psig in the event of a steam line break accident. A visual inspection in conjunction with Type A leakage tests is sufficient to demonstrate this capability.

3/4.6.1.6 CONTAINMENT INTERNAL PRESSURE

The limitations on containment to secondary containment differential pressure ensure that the containment peak calculated pressure of 9.0 psig does not exceed the design pressure of 15.0 psig during design basis steam line break conditions or that the external pressure differential does not exceed the design maximum external pressure differential of 3.0 psid. The limit of -0.25 to +0.25 psid for initial containment to secondary containment pressure will limit the containment pressure to 9.0 psid which is less than the design pressure and is consistent with the safety analysis for containment design pressure.

3/4.6.1.7 PRIMARY CONTAINMENT AVERAGE AIR TEMPERATURE

The limitation on containment average air temperature ensures that the containment peak air temperature does not exceed the design temperature of 185°F during steam line break conditions and is consistent with the safety analysis. The containment average air temperature is determined by the arithmetical average of the readings from eight containment air temperature instruments, two in each quadrant of the containment. The average should consist of at least one reading from each quadrant. However, all available instruments should be used in determining the containment average air temperature.

3/4.6.2.4 DRYWELL STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the drywell will be maintained comparable to the original design specification for the life of the unit. A visual inspection in conjunction with Type A leakage tests is sufficient to demonstrate this capability.

3/4.6.2.5 DRYWELL INTERNAL PRESSURE

The limitations on drywell-to-containment differential pressure ensure that the drywell peak calculated pressure of 19.7 psig does not exceed the design pressure of 30.0 psig and that the containment peak pressure of 9.0 psig does not exceed the design pressure of 15.0 psig during steam line break conditions. The maximum external drywell pressure differential is limited to 0.2 psid, well below the pressure at which suppression pool water will be forced over the wier wall and into the drywell. The limit of 1.0 psid for initial positive drywell to containment pressure will limit the drywell pressure to 19.7 psid which is less than the design pressure and is consistent with the safety analysis to limit drywell internal pressure.

3/4.6.2.6 DRYWELL AVERAGE AIR TEMPERATURE

The limitation on drywell average air temperature ensures that peak drywell temperature does not exceed the design temperature of 330°F during LOCA conditions and is consistent with the safety analysis.

3/4.6.2.7 DRYWELL VENT AND PURGE

The drywell purge system must be normally maintained closed to eliminate a potential challenge to containment structural integrity due to a steam bypass of the suppression pool. Intermittent venting of the drywell is allowed for pressure control during OPERATIONAL CONDITIONS 1, 2, and 3, but the cumulative time of venting is limited to 5 hours per 365 days. Venting of the drywell is prohibited when the 12-inch continuous containment purge system or the 36-inch containment building ventilation system supply or exhaust valves are open. This eliminates any resultant direct leakage path from the drywell to the environment.

In OPERATIONAL CONDITIONS 1, 2 and 3, the drywell isolation valves (IVQ002, IVQ003) have permanently installed blocking devices so as not to open more than 50°. This assures that the valve would be able to close against drywell pressure buildup resulting from a LOCA.

Operation of the drywell vent and purge 24-inch supply and exhaust valves during plant operational conditions 4 and 5 is unrestricted, and the cumulative time for vent and purge operation is unlimited.

The drywell average air temperature is determined by the arithmetical average of the readings from 14 drywell air temperature instruments, two at each drywell elevation. The average should consist of at least one reading from each elevation. However, all available instruments should be used in determining the drywell average air temperature.

3/4.6.3 DEPRESSURIZATION SYSTEMS (Continued)

The suppression pool cooling function is a mode of the RHR system and functions as part of the containment heat removal system. The purpose of the system is to ensure containment integrity following a LOCA by preventing excessive containment pressures and temperatures. The suppression pool cooling mode is designed to limit the long term bulk temperature of the pool to 185°F considering all of the post-LOCA energy additions. The suppression pool cooling trains, being an integral part of the RHR system, are redundant, safety-related component systems that are initiated following the recovery of the reactor vessel water level by ECCS flows from the RHR system. Heat rejection to the standby service water is accomplished in the RHR heat exchangers.

The suppression pool make-up system provides water from the upper containment pool to the suppression pool by gravity flow through two 100% capacity dump lines following a LOCA. The quantity of water provided is sufficient to account for all conceivable post-accident entrapment volumes, ensuring the long term energy sink capabilities of the suppression pool and maintaining the water coverage over the uppermost drywell vents. The minimum freeboard distance above the suppression pool high water level to the top of the weir wall is adequate to preclude flooding of the drywell in the event of an inadvertent dump. During refueling, neither automatic nor manual action can open the make-up dump valves.

3/4.6.4 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment and is consistent with the requirements of GDC 54 through 57 of Appendix A to 10 CFR 50 "and the requirements of NUREG-0660 as clarified by NUREG-0737 as described in the FSAR, Appendix D, item II.E.4.2 (Containment Isolation Dependability)." (INSERT)

Measurement of the closure time of automatic containment isolation valves is performed for the purpose of demonstrating PRIMARY CONTAINMENT INTEGRITY and system OPERABILITY (Specification 3/4.6.1).

The Maximum Isolation Times (MIT) for primary containment automatic isolation valves listed in this specification are either the analytical times used in the accident analysis; described in the FSAR; or times derived by applying margins to the test data obtained by performing testing in accordance with the Inservice Testing program (IST) outlined in Section XI of the ASME Code. For non-analytical automatic primary containment isolation valves, the MIT is derived as follows:

1) Valves with full stroke times less than or equal to 10 seconds, MIT = Initial Base Line Time X 2
2) Valves with full stroke time greater than 10 seconds, MIT = Initial Base Line Time X 1.5.

Insert for page B 3/4 6-7

OPERABILITY of the automatic containment isolation valves which isolate the reactor water cleanup system suction containment penetration is also required in OPERATIONAL CONDITION 5 with any control rod withdrawn to ensure that, in the event initiation of the standby liquid control system becomes necessary, the sodium pentaborate solution is not removed from the reactor coolant system. The requirements for OPERABILITY of these valves agree with those conditions for which the standby liquid control system is required to be OPERABLE per Specification 3/4.1.5.

The opening of locked or sealed closed containment isolation valves on an intermittent basis under administrative control includes the following considerations: (1) stationing an operator, who is in constant communication with the control room, at the valve controls, (2) instructing this operator to close these valves in an accident situation, and (3) assuring that environmental conditions will not preclude access to close the valves and that this action will prevent the release of radioactivity outside the containment.

No Changes. This page provided for continuity.

3/4.8.1, 3/4.8.2, and 3/4.8.3 AC SOURCES, DC SOURCES, AND ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

The surveillance requirements for demonstrating the OPERABILITY of the unit batteries are in accordance with the recommendations of Regulatory Guide 1.129 "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," February 1978, Regulatory Guide 1.32, "Criteria for Safety-Related Electric Power Systems for Nuclear Power Plants," February 1977, IEEE Std 450-1975, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations," and IEEE Std 308-1974, "IEEE Standard Criteria for Class 1E Power Systems for Nuclear Power Generating Stations" with exceptions noted in the CPS-FSAR.

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage on float charge, connection resistance values and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates and compares the battery capacity at that time with the rated capacity.

Table 4.8.2.1-1 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and .015 below the manufacturer's full charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than .020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than .010 below the manufacturer's full charge specific gravity, ensures the OPERABILITY and capability of the battery.

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8.2.1-1 is permitted for up to 7 days. During this 7 day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than .020 below the manufacturer's recommended full charge specific gravity ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity ensures that an individual cell's specific gravity will not be more than .040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Containment electrical penetrations and penetration conductors are protected by demonstrating the OPERABILITY of primary and backup overcurrent protection

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES (Continued)

circuit breakers by periodic surveillance. The surveillance requirements applicable to lower voltage circuit breakers provides assurance of breaker reliability by testing at least one representative sample of each manufacturer's brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

The bypassing of the motor-operated valves thermal overload protection continuously ensures that the thermal overload protection will not prevent safety-related valves from performing their function. The Surveillance Requirements for demonstrating the bypassing of the thermal overload protection continuously are in accordance with Regulatory Guide 1.106 "Thermal Overload Protection for Electric Motors on Motor-Operated Valves," Revision 1, March 1977.

The reactor protection system (RPS) electric power monitoring assemblies provide protection to the RPS and other systems which receive power from the RPS buses by acting to disconnect the RPS from the power source in the presence of an electrical fault in the power supply.

The low-frequency motor generator set electrical power supply to the reactor recirculation pumps is provided with one overcurrent protection circuit breaker since the generator's maximum output under fault conditions is less than the penetration's design rating.