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BASES

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## DEFINITIONS

2. Closed by at least one manual valve, blank flange, or deactivated automatic valve secured in its closed position, except for valves that are open under administrative control as permitted by Specification 3.6.3.
- b. All primary containment equipment hatches are closed and sealed.
- c. Each primary containment air lock is in compliance with the requirements of Specification 3.6.1.3.
- d. The primary containment leakage rates are within the limits of Specification 3.6.1.2.
- e. The suppression chamber is in compliance with the requirement of Specification 3.6.2.1.
- f. The sealing mechanism associated with each primary containment penetration, e.g., welds, bellows, or O-rings, is OPERABLE.
- g. The suppression chamber to reactor building vacuum breakers are in compliance with Specification 3.6.4.2.

## THE PROCESS CONTROL PROGRAM

- 1.30 The PROCESS CONTROL PROGRAM (PCP) shall contain the current formulas, sampling, analyses, test, and determinations to be made to ensure that 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 Parts 20, 61, and 71, State regulations, burial ground requirements, and other requirements governing the disposal of solid radioactive waste.

## PURGE - PURGING

- 1.31 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

- 1.32 RATED THERMAL POWER shall be a total reactor core heat transfer rate to the reactor coolant of 3430 MWT.

TABLE 3.3.2-1

ISOLATION ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM<sup>(a)</sup></u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
1. <u>PRIMARY CONTAINMENT ISOLATION</u>			
a. Reactor Vessel Low Water Level			
1) Level 3 ##	2	1, 2, 3	20
2) Level 2 (d)	2	1, 2, 3	20
3) Level 1	2	1, 2, 3	20
b. Drywell Pressure - High ##	2	1, 2, 3	20
c. Main Steam Line			
1) Radiation - High##	2	1, 2, 3	21
2) Pressure - Low	2	1	22
3) Flow - High	2	1, 2, 3	21
d. Main Steam Line Tunnel Temperature - High	2(c)	1, 2, 3	21
e. Condenser Pressure - High	2	1, 2**, 3**	21
f. Turbine Bldg. Area Temperature - High	2	1, 2, 3	21
g. Deleted			
h. Manual Initiation	1/valve	1, 2, 3	26

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Amendment No. 41, 7B

TABLE 3.3.2-1 (Continued)  
ISOLATION ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM<sup>(a)</sup></u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
2. <u>REACTOR WATER CLEANUP SYSTEM ISOLATION</u>			
a. Δ Flow - High #	1 <sup>(h)</sup>	1, 2, 3	23
b. Heat Exchanger/Pump/High Energy Piping Area Temperature - High	6	1, 2, 3	23
c. Heat Exchanger/Pump/Phase Separator Area Ventilation Δ Temp. - High	2	1, 2, 3	23
d. SLCS Initiation	NA	1, 2, 3	23
e. Reactor Vessel Low Water Level - Level 2	2	1, 2, 3	23
f. Deleted			
g. Manual Initiation	1/valve	1, 2, 3	26
3. <u>REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION</u>			
a. RCIC Steam Line Flow - High			
1. Differential Pressure	1	1, 2, 3	23
2. Time Delay	1	1, 2, 3	23
b. RCIC Steam Supply <sup>(f)</sup> Pressure - Low	2	1, 2, 3	23
c. RCIC Turbine Exhaust Diaphragm Pressure - High	2	1, 2, 3	23
d. RCIC Equipment Room Temperature - High	1	1, 2, 3	23
e. Manual Initiation	1/valve	1, 2, 3	26

TABLE 3.3.2-1 (Continued)  
ISOLATION ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM<sup>(a)</sup></u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
4. <u>HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION</u>			
a. HPCI Steam Line Flow - High			
1. Differential Pressure	1	1, 2, 3	23
2. Time Delay	1	1, 2, 3	23
b. HPCI Steam Supply Pressure - Low (g)	2	1, 2, 3	23
c. HPCI Turbine Exhaust Diaphragm Pressure - High	2	1, 2, 3	23
d. HPCI Equipment Room Temperature - High	1	1, 2, 3	23
e. Manual Initiation	1/valve	1, 2, 3	26
5. <u>RHR SYSTEM SHUTDOWN COOLING MODE ISOLATION</u>			
a. Reactor Vessel Low Water Level - Level 3##	2	1, 2, 3	25
b. Reactor Vessel (Shutdown Cooling Cut-in Permissive Interlock) Pressure - High	1	1, 2, 3	25
c. Manual Initiation	1/valve	1, 2, 3	26
6. <u>SECONDARY CONTAINMENT ISOLATION</u>			
a. Reactor Vessel Low Water Level - Level 2 (b) ***	2	1, 2, 3, and *	24
b. Drywell Pressure - High (b) *** ##	2	1, 2, 3	24
c. Fuel Pool Ventilation Exhaust Radiation - High (b)***	2	1, 2, 3, and *	24
d. Manual Initiation (b)***	1(i)	1, 2, 3, and *	27

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Amendment No. 41, 7B

TABLE 3.3.2-1 (Continued)  
ISOLATION ACTUATION INSTRUMENTATION

ACTION STATEMENTS

- ACTION 20 - Be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
- ACTION 21 - Be in at least STARTUP with the associated isolation valves closed within 6 hours or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
- ACTION 22 - Be in at least STARTUP within 6 hours.
- ACTION 23 - Close the affected system isolation valves within 1 hour and declare the affected system inoperable.
- ACTION 24 - Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within 1 hour.
- ACTION 25 - Disable in the closed position the affected system isolation valves within 1 hour and declare the shutdown cooling mode of RHR inoperable.
- ACTION 26 - Restore the manual initiation function to OPERABLE status within 8 hours or close the affected system isolation valves within the next hour and declare the affected system inoperable.
- ACTION 27 - Restore the manual initiation function to OPERABLE status within 8 hours or establish SECONDARY CONTAINMENT INTEGRITY with the Standby Gas Treatment System operating.

TABLE NOTATIONS

- \* When handling irradiated fuel in the secondary containment, during CORE ALTERATIONS, or during operations with a potential for draining the reactor vessel.
- \*\* The high condenser pressure input to the isolation actuation instrumentation may be bypassed during reactor shutdown or for reactor startup when condenser pressure is above the trip setpoint.
- \*\*\* Actuates dampers shown in Table 3.6.5.2-1.
- (a) A channel may be placed in an inoperable status for up to 6 hours for required surveillance without placing the channel or trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter. In addition, for the HPCI system and RCIC system isolation, provided that the redundant isolation valve, inboard or outboard, as applicable, in each line is OPERABLE and all required actuation instrumentation for that valve is OPERABLE, one channel may be placed in an inoperable status for up to 8 hours for required surveillance without placing the channel or trip system in the tripped condition.
- (b) Also starts the standby gas treatment system.
- (c) A channel is OPERABLE if 2 of 4 detectors in that channel are OPERABLE.
- (d) Deleted.
- (e) Deleted.

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TABLE NOTATIONS (Continued)

- (f) Isolates with simultaneous RCIC Steam Supply Pressure-Low (Isolation Instrumentation) and Drywell Pressure-High (ECCS Actuation Instrumentation).
- (g) Isolates with simultaneous HPCI Steam Supply Pressure-Low (Isolation Actuation Instrumentation) and Drywell Pressure-High (ECCS Actuation Instrumentation).
- (h) This trip function is derived from three non-redundant flow transmitters and a non-redundant flow summer. Inoperability of the non-redundant circuitry causes the channels in both trip systems to be inoperable. The remainder of the circuit is redundant and can be considered on a per trip system basis. Both trip systems may be placed in an inoperable status for up to 2 hours for required surveillance of the non-redundant circuitry without taking the required ACTION provided that the remainder of the Reactor Water Cleanup System Isolation channels (except the SLCS Initiation) are OPERABLE.
- (i) Secondary Containment Isolation Push-buttons.
- (j) Deleted.
- # With time delay of 45 seconds.
- ## These trip function(s) are common to the RPS trip function.

TABLE 3.3.2-3

## ISOLATION ACTUATION SYSTEM INSTRUMENTATION RESPONSE TIME

<u>TRIP FUNCTION</u>	<u>RESPONSE TIME (Seconds)</u>
<u>1. PRIMARY CONTAINMENT ISOLATION</u>	
a. Reactor Vessel Low Water Level	
1) Level 3	≤ 13(a)
2) Level 2	≤ 13(a)**
3) Level 1	≤ 1.0*/≤ 13(a)**
b. Drywell Pressure - High	≤ 13(a)
c. Main Steam Line	
1) Radiation - High(b)	≤ 13(a)**
2) Pressure - Low	≤ 13(a)**
3) Flow - High	≤ 13(a)**
d. Main Steam Line Tunnel Temperature - High	NA
e. Condenser Pressure - High	NA
f. Turbine Bldg. Area Temperature - High	NA
g. Deleted	
h. Manual Initiation	NA
<u>2. REACTOR WATER CLEANUP SYSTEM ISOLATION</u>	
a. Δ Flow - High	NA
b. Heat Exchanger/Pump/High Energy Piping Area Temperature - High	NA
c. Heat Exchanger/Pump/Phase Separator Area Ventilation Temperature ΔT - High	NA
d. SLCS Initiation	NA
e. Reactor Vessel Low Water Level - Level 2	≤ 13(a)
f. Deleted	
g. Manual Initiation	NA
<u>3. REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION</u>	
a. RCIC Steam Line Flow - High	≤ 13(a)
b. RCIC Steam Supply Pressure - Low	≤ 13(a)
c. RCIC Turbine Exhaust Diaphragm Pressure - High	NA
d. RCIC Equipment Room Temperature - High	NA
e. Manual Initiation	NA

TABLE 3.3.2-3 (Continued)

ISOLATION ACTUATION SYSTEM INSTRUMENTATION RESPONSE TIME

<u>TRIP FUNCTION</u>	<u>RESPONSE TIME(Seconds)</u>
<u>4. HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION</u>	
a. HPCI Steam Flow - High	≤13(a)
b. HPCI Steam Supply Pressure - Low	≤13(a)
c. HPCI Turbine Exhaust Diaphragm Pressure - High	NA
d. HPCI Equipment Room Temperature - High	NA
e. Manual Initiation	NA
<u>5. RHR SYSTEM SHUTDOWN COOLING MODE ISOLATION</u>	
a. Reactor Vessel Low Water Level - Level 2	NA
b. Reactor Vessel (Shutdown Cooling Cut-in Permissive Interlock) Pressure - High	NA
c. Manual Initiation	NA
<u>6. SECONDARY CONTAINMENT ISOLATION</u>	
a. Reactor Vessel Low Water Level - Level 2	≤13(a)
b. Drywell Pressure - High	≤13(a)
c. Fuel Pool Ventilation Exhaust Radiation - High(b)	≤13(a)
d. Manual Initiation	NA

(a) The isolation system instrumentation response time shall be measured and recorded as a part of the ISOLATION SYSTEM RESPONSE TIME. Isolation system instrumentation response time specified includes diesel generator starting and sequence loading delays.

(b) Radiation detectors are exempt from response time testing. Response time shall be measured from detector output or the input of the first electronic component in the channel.

\*Isolation system instrumentation response time for MSIVs only. No diesel generator delays assumed for MSIVs.

\*\*Isolation system instrumentation response time for associated valves except MSIVs.

## CONTAINMENT SYSTEMS

### 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  $P_a$ , 56.5 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.b for all other Type B and C penetrations, the combined leakage rate is less than or equal to  $0.60 L_a$ .
- b. At least once per 31 days by verifying that all primary containment penetrations except those inside the containment or in locked high radiation areas (listed in Table 4.6.1.1-1) not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by locked closed valves, blank flanges, or deactivated automatic valves secured in position, except for valves that are open under administrative control as permitted by Specification 3.6.3.
  1. Valves, flanges, and deactivated automatic valves which are located inside the containment, and are locked, sealed or otherwise secured in the closed position shall be verified closed during each COLD SHUTDOWN except such verification need not be performed when the primary containment has not been deinerted since the last verification or more often than once per 92 days.

\*See Special Test Exception 3.10.1.

CONTAINMENT SYSTEMS  
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:  $L_a$ , 0.5 percent by weight of the containment air per 24 hours at  $P_a$ , 56.5 psig.
- b. A combined leakage rate of less than or equal to  $0.60 L_a$  for all primary containment penetrations and all primary containment isolation valves, except for main steam line isolation valves\* and primary containment isolation valves which are hydrostatically tested, subject to Type B and C tests when pressurized to  $P_a$ , 56.5 psig.
- c. \*Less than or equal to 100 scf per hour for all four main steam lines when tested at 25.0 psig.
- d. A combined leakage rate of less than or equal to 5 gpm for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment, when tested at  $1.10 P_a$ , 62.2 psig.
- e. Less than or equal to 1 gpm times the number of valves per penetration not to exceed 3 gpm per penetration for any line penetrating containment and hydrostatically tested at  $1.10 P_a$ , 62.2 psig.

APPLICABILITY: When PRIMARY CONTAINMENT INTEGRITY is required per Specification 3.6.1.1.

ACTION:  
With:

- a. The measured overall integrated primary containment leakage rate exceeding  $0.75 L_a$ , or
  - b. The measured combined leakage rate for all primary containment penetrations and all primary containment isolation valves, except for main steam line isolation valves\* and primary containment isolation valves which are hydrostatically tested, subject to Type B and C tests exceeding  $0.60 L_a$ , or
  - c. The measured leakage rate exceeding 100 scf per hour for all four main steam lines, or
  - d. The measured combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment exceeding 5 gpm, or
  - e. The leakage rate of any hydrostatically tested line penetrating primary containment exceeding 1 gpm per isolation valve times the number of containment isolation valves per penetration or greater than 3 gpm per penetration,
- prior to increasing reactor coolant system temperature above 200°F, restore:
- a. The overall integrated leakage rate(s) to less than or equal to  $0.75 L_a$ , and

\*Exemption to Appendix J of 10 CFR Part 50.

## CONTAINMENT SYSTEMS

### LIMITING CONDITIONS FOR OPERATION (Continued)

#### ACTION: (Continued)

- b. The combined leakage rate for all primary containment penetrations and all primary containment isolation valves, except for main steam line isolation valves\* and primary containment isolation valves which are hydrostatically tested, subject to Type B and C tests to less than or equal to  $0.60 L_a$ , and
- c. The leakage rate to less than or equal to 100 scf per hour for all four main steam lines, and
- d. The combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment to less than or equal to 5 gpm, and
- e. The leakage rate of any hydrostatically tested line penetrating primary containment to less than 1 gpm per isolation valve times the number of containment isolation valves per penetration or less than 3 gpm per penetration.

### SURVEILLANCE REQUIREMENTS

4.6.1.2 The primary containment leakage rates shall be demonstrated at the following test schedule and shall be determined using the methods and provisions described herein:

- a. Integrated Primary Containment Leakage Rate - Type A Test
  1. Integrated leak rate tests shall be performed at the test pressure ( $P_a$ ) of 56.5 psig. Containment pressure shall not be permitted to decrease more than 1 psi below  $P_a$ .
  2. Type A tests should be completed prior to Type B and C tests. If Type B and C tests are conducted prior to Type A test, then the Type A test results shall have added to it the difference between the "as found" vs. "as left" leakages for all penetrations. Type B and C leakages not accounted for in the Type A test shall be added to the upper confidence limit (UCL) to estimate the overall integrated leakage rate. However, when adding the leakage rate measured during a Type C test to the results of a Type A test, the lower leakage rate of the two isolation valves in a line shall be used.

CONTAINMENT SYSTEMS  
SURVEILLANCE REQUIREMENTS (Continued)

10. The accuracy of each Type A test shall be verified by a supplemental test which:
- (a) Confirms the accuracy of the test by verifying that the difference between the supplemental data and the Type A test data is within  $0.25 L_a$ .
  - (b) Has duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.
  - (c) Requires that the rate of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 75% but not more than 125% of  $L_a$  at  $P_a$ , 56.5 psig,
- b. Type B and C tests shall be conducted# with gas at  $P_a$ , 56.5 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. Valves pressurized with fluid from a seal system,
  5. ECCS and RCIC containment isolation valves in hydrostatically tested lines which penetrate the primary containment, and
  6. Purge supply and exhaust isolation valves with resilient material seals.
- c. Air locks shall be tested and demonstrated OPERABLE per Specification 4.6.1.3.
- d. Main steam line isolation valves shall be leak tested at least once per 18 months.
- e. Type B tests for penetrations employing a continuous leakage monitoring system shall be conducted at  $P_a$ , 56.5 psig, at intervals no greater than once per 3 years.
- f. Leakage from isolation valves that are sealed with fluid from a seal system may be excluded, subject to the provisions of Appendix J, Section III.C.3, when determining the combined leakage rate provided the seal system and valves are pressurized to at least  $1.10 P_a$ , 62.2 psig, and the seal system capacity is adequate to maintain system pressure for at least 30 days.

\*Unless a hydrostatic test is required.

\*\*With the exception of valves E11-F009, E11-F408 and E11-F603 for which the surveillance interval has been extended until startup from the first refueling outage late in 1989.

#Except for LPCI Loop A and B Injection Isolation valves, which are hydrostatically tested in accordance with Specification 4.4.3.2.2 in lieu of this requirement.

## CONTAINMENT SYSTEMS

### 3/4.6.3 PRIMARY CONTAINMENT ISOLATION VALVES

#### LIMITING CONDITION FOR OPERATION

---

3.6.3 Each primary containment isolation valve and reactor instrumentation line excess flow check valve shall be OPERABLE.\*\*

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

#### ACTION:

- a. With one or more of the primary containment isolation valves 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 locked closed manual valve or blank flange.\*

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

- b. With one or more of the reactor instrumentation line excess flow check valves inoperable, operation may continue and the provisions of Specification 3.0.3 are not applicable 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.

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

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

\*\*Locked or sealed closed valves may be opened on an intermittent basis under administrative control.

SURVEILLANCE REQUIREMENTS

---

4.6.3.1 Each primary containment isolation valve 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 isolation time.\*

4.6.3.2 Each primary containment automatic isolation valve shall be demonstrated OPERABLE during COLD SHUTDOWN or REFUELING at least once per 18 months by verifying that on a containment isolation test signal each automatic isolation valve actuates to its isolation position.

4.6.3.3 The isolation time of each primary containment power operated or automatic valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.3.4 Each reactor instrumentation line excess flow check valve shall be demonstrated OPERABLE at least once per 18 months by verifying that the valve checks flow.

4.6.3.5 Each traversing in-core probe system explosive isolation valve shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying the continuity of the explosive charge.
- b. At least once per 18 months by removing the explosive squib from at least one explosive valve such that the explosive squib in each explosive valve will be tested at least once per 90 months, and initiating the explosive squib. The replacement charge for the exploded squib shall be from the same manufactured batch as the one fired or from another batch which has been certified by having at least one of that batch successfully fired. No squib shall remain in use beyond the expiration of its shelf-life or operating life, as applicable.

\*Except for TIP shear valves which are demonstrated OPERABLE per Specification 4.6.3.5.

Table 3.6.3-1 has been deleted.

3/4 6-22 through 3/4 6-47 are "not used."

## ELECTRICAL POWER SYSTEMS

### MOTOR-OPERATED VALVES THERMAL OVERLOAD PROTECTION

#### LIMITING CONDITION FOR OPERATION

---

3.8.4.3 The thermal overload protection of each valve used in safety systems shall be OPERABLE. |

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

#### ACTION:

With the thermal overload protection for one or more of the above required valves inoperable, continuously bypass the inoperable thermal overload within 8 hours or declare the affected valve(s) inoperable and apply the appropriate ACTION statement(s) for the affected system(s).

#### SURVEILLANCE REQUIREMENTS

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4.8.4.3 The thermal overload protection for the above required valves shall be demonstrated OPERABLE at least once per 18 months and following maintenance on the motor starter by the performance of a CHANNEL CALIBRATION of a representative sample of at least 25% of all thermal overloads for the above required valves.

Table 3.8.4.3-1 has been deleted.

3/4 8-21 through 3/4 8-24 are "not used."

## CONTAINMENT SYSTEMS

### BASES

#### DEPRESSURIZATION SYSTEMS (Continued)

examination following any event where potentially high loadings could occur provides assurance that no significant damage was encountered. Particular attention should be focused on structural discontinuities in the vicinity of the relief valve discharge since these are expected to be the points of highest stress.

In addition to the limits on temperature of the suppression chamber pool water, operating procedures define the action to be taken in the event a safety/relief valve inadvertently opens or sticks open. As a minimum this action shall include: (1) use of all available means to close the valve, (2) initiate suppression pool water cooling, (3) initiate reactor shutdown, and (4) if other safety/relief valves are used to depressurize the reactor, their discharge shall be separated from that of the stuck-open safety/relief valve to assure mixing and uniformity of energy insertion to the pool.

#### 3/4.6.3 PRIMARY CONTAINMENT ISOLATION VALVES

The OPERABILITY of the primary 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 of 10 CFR Part 50. Containment isolation within the time limits specified for those isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

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.

#### 3/4.6.4 VACUUM RELIEF

Vacuum relief breakers are provided to equalize the pressure between the suppression chamber and drywell and between the Reactor Building and suppression chamber. This system will maintain the structural integrity of the primary containment under conditions of large differential pressures. There are valves to provide redundancy so that operation may continue for up to 72 hours with redundant vacuum breakers inoperable in the closed position.

The vacuum breakers between the suppression chamber and the drywell must not be inoperable in the open position since this would allow bypassing of the suppression pool in case of an accident.

## CONTAINMENT SYSTEMS

### BASES

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#### 3/4.6.5 SECONDARY CONTAINMENT

Secondary containment is designed to minimize any ground level release of radioactive material which may result from an accident. The reactor building and associated structures provide secondary containment during normal operation when the drywell is sealed and in service. At other times, the drywell may be open and, when required, secondary containment integrity is specified.

Establishing and maintaining a vacuum in the reactor building with the standby gas treatment system once per 18 months, along with the surveillance of the doors, hatches, dampers and valves, is adequate to ensure that there are no violations of the integrity of the secondary containment.