# ATTACHMENT (1)

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CHANNEL CHECK

1.6 A **CHANNEL CHECK** shall be the qualitative assessment of channel behavior during operation by observation. This determination shall include, where possible, comparison of the channel indication and/or status with other indications and/or status derived from independent instrument channels measuring the same parameter.

CHANNEL FUNCTIONAL TEST

1.7 A **CHANNEL FUNCTIONAL TEST** shall be:

a. Analog channels - the injection of a simulated signal into the channel as close to the primary sensor as practicable to verify **OPERABILITY** including alarm and/or trip functions.

b. Bistable channels - the injection of a simulated signal into the channel sensor to verify **OPERABILITY** including alarm and/or trip functions.

CONTAINMENT INTEGRITY

1.8 **CONTAINMENT INTEGRITY** shall exist when:

1.8.1 All penetrations required to be closed during accident conditions are either:

a. Capable of being closed by an **OPERABLE** Containment Automatic Isolation Valve System, or

b. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except ~~as provided in Table 3.6-1 of~~ for values that are open under administrative control as permitted by Specification 3.6.4.1.

1.8.2 All equipment hatches are closed and sealed,

1.8.3 Each airlock is in compliance with the requirements of Specification 3.6.1.3,

1.8.4 The containment leakage rates are within the limits of Specification 3.6.1.2, and

1.8.5 The sealing mechanism associated with each penetration (e.g., welds, bellows or O-rings) is **OPERABLE**.

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION: Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all 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 their positions, except ~~as provided in Table 3.6-1 of~~ Specification 3.6.4.1.

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

c. By verifying that the equipment hatch is closed and sealed, prior to entering MODE 4 following a shutdown where the equipment hatch was opened, by conducting a Type B test per 10 CFR Part 50, Appendix J.

for valves that are open under administrative control as permitted by

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

Add INSERT A

INSERT A

(*) Hydrogen purge containment vent isolation valves shall be opened for containment pressure control, airborne radioactivity control, and surveillance testing purposes only.

(#) The shutdown cooling isolation valves may be opened when the RCS temperature is below 300 °F to establish shutdown cooling flow.

3/4.6 CONTAINMENT SYSTEMS

3/4.6.4 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.4.1 ~~The~~ (Each) containment isolation valves ~~specified in Table 3.6-1~~ shall be OPERABLE ~~with isolation times as shown in Table 3.6-1.~~ (& #)

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: With one or more of the isolation valve(s) ~~specified in Table 3.6-1~~ inoperable, either:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate the affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

e. The provisions of Specification 3.0.4 are not applicable provided that the affected penetration is isolated.

SURVEILLANCE REQUIREMENTS

4.6.4.1.1 (Each containment) ~~The~~ isolation valves ~~specified in Table 3.6-1~~ 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 performance of a cycling test and verification of isolation time.

Add INSERT B

INSERT B

(*) Valves that are normally closed may be opened on an intermittent basis under administrative control.

(#) Containment purge isolation valves isolation times will only apply in **MODE** 6 when the valves are required to be **OPERABLE** and they are open. Isolation times for containment purge isolation valves is NA for **MODES** 1, 2, 3 and 4 per Technical Specification 3/4 6.1.7, during which time these valves must remain closed.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.4.1.2 Each containment isolation valve ~~specified in Table 3.6-1~~ shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per REFUELING INTERVAL by:

a. Verifying that on each containment isolation Channel A or Channel B test signal, each required isolation valve actuates to its isolation position.

b. Verifying that on each Containment Radiation-High Test Channel A or Channel B test signal, both required containment purge valves actuate to their isolation position.

c. Verifying that on each Safety Injection Actuation Channel A or Channel B test signal, each required isolation valve actuates to its isolation position.

~~4.6.4.1.3~~ The isolation time of each power-operated or automatic containment isolation valve ~~or Table 3.6-1~~ shall be determined to be within its limit when tested pursuant to Technical Specification 4.0.5.

## TABLE 3.6-1

## CONTAINMENT ISOLATION VALVES

| PENETRATION NO. | ISOLATION CHANNELS | ISOLATION VALVE IDENTIFICATION NO. | FUNCTION | ISOLATION TIME (SECONDS) |
|---|---|---|---|---|
| 1A | SIAS A | PS-5465-CV | R.C. and Pressurizer Sampling | ≤ 7 |
| | SIAS A | PS-5466-CV | | ≤ 7 |
| | SIAS A | PS-5467-CV | | ≤ 7 |
| | SIAS B | PS-5464-CV | | ≤ 7 |
| 1B | SIAS A | WGS-2180-CV | Containment Vent Header to Waste Gas | ≤ 7 |
| | SIAS B | WGS-2181-CV | | ≤ 7 |
| 1C | SIAS A | CVC-506-CV | RCP Seals Controlled Bleedoff | ≤ 7 |
| | SIAS B | CVC-505-CV | | ≤ 7 |
| 1D | NA | PS-6529-SV* | Post Accident Sampling Liquid Return to RC Drain Tank | NA |
| 2A | SIAS A | CVC-515-CV | Letdown Line | ≤ 13 |
| | SIAS B | CVC-516-CV | | ≤ 13 |
| | NA | CVC-105 | | NA |
| | NA | CVC-103 | | NA |
| 2B | NA | CVC-517-CV | Charging Line | NA |
| | NA | CVC-518-CV | | NA |
| | NA | CVC-519-CV | | NA |
| | NA | CVC-435-RV | | NA |
| | NA | CVC-184 | | NA |

Delete

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

| PENETRATION NO. | ISOLATION CHANNELS | ISOLATION VALVE IDENTIFICATION NO. | FUNCTION | ISOLATION TIME (SECONDS) |
|---|---|---|---|---|
| 7A | NA<br>NA | Blind Flange<br>ILRT-1 | ILRT | NA<br>NA |
| 7B | NA<br>NA | Blind Flange<br>ILRT-2 | ILRT | NA<br>NA |
| 8 | SIAS A<br>SIAS B | EAD-5462-MOV<br>EAD-5463-MOV | Containment Normal Sump | ≤ 13<br>≤ 13 |
| 9 | NA<br>NA | SI-340<br>SI-326 | Containment Spray | NA<br>NA |
| 10 | NA<br>NA | SI-330<br>SI-316 | Containment Spray | NA<br>NA |
| 13 | CRS A<br>CRS B | CPA-1410-CV(3)<br>CPA-1411-CV(3) | Purge Air Inlet | ≤ 7**<br>≤ 7** |
| 14 | CRS A<br>CRS B | CPA-1412-CV(3)<br>CPA-1413-CV(3) | Purge Air Outlet | ≤ 7**<br>≤ 7** |
| 15 | SIAS A<br>SIAS B | RE-5291-CV<br>RE-5292-CV | Purge Air Monitor | ≤ 7<br>≤ 7 |
| 16 | CIS A | CC-3832-CV | Component Cooling Water Inlet | ≤ 18 |
| 18 | CIS B | CC-3833-CV | Component Cooling Water Outlet | ≤ 18 |

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

| PENETRATION NO. | ISOLATION CHANNELS | ISOLATION VALVE IDENTIFICATION NO. | FUNCTION | ISOLATION TIME (SECONDS) |
|---|---|---|---|---|
| 19A | NA | IA-337 | Instrument Air | NA |
| | CIS A | IA-2080-MOV | | ≤ 13 |
| 19B | NA | PA-1040* | Plant Air | NA |
| | NA | PA-1044* | | NA |
| 20A | NA | $N_2$-344 | Nitrogen Supply | NA |
| | NA | $N_2$-612-CV* | | NA |
| | NA | $N_2$-622-CV* | | NA |
| | NA | $N_2$-632-CV* | | NA |
| | NA | $N_2$-642-CV* | | NA |
| 20B | NA | $N_2$-389 | Nitrogen Supply | NA |
| | NA | $N_2$-345 | | NA |
| 20C | NA | $N_2$-346 | Nitrogen Supply | NA |
| | NA | $N_2$-392 | | NA |
| 23 | SIAS A | RCW-4260-CV | R.C. Drain Tank Drains | ≤ 7 |
| 24 | SIAS B | PS-6531-SV | Oxygen Sample Line | ≤ 7 |
| 37 | NA | PSW-1019 | Plant Water | NA |
| | NA | PSW-1008 | | NA |
| 38 | NA | DW-5460-CV* | Demineralized Water | NA |
| 39 | NA | SI-463 | Safety Injection Tank Test Line | NA |
| | NA | SI-455 | | NA |

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

| PENETRATION NO. | ISOLATION CHANNELS | ISOLATION VALVE IDENTIFICATION NO. | FUNCTION | ISOLATION TIME (SECONDS) |
|---|---|---|---|---|
| 41 | NA | SI-652-MOV (2) | Shutdown Cooling | NA |
| | NA | SI-651-MOV (2) | | NA |
| 44 | NA | FP-141-A | Fire Protection | NA |
| | NA | FP-141-B | | NA |
| | NA | FP-6200-MOV* | | NA |
| 47A | NA | PS-6540A-SV* | Hydrogen Sample Outlet | NA |
| | NA | PS-6507A-SV* | | NA |
| 47B | NA | PS-6540E-SV* | Hydrogen Sample Outlet | NA |
| | NA | PS-6507E-SV* | | NA |
| 47C | NA | PS-6540F-SV* | Hydrogen Sample Outlet | NA |
| | NA | PS-6507F-SV* | | NA |
| 47D | NA | PS-6540G-SV* | Hydrogen Sample Return | NA |
| | NA | PS-6507G-SV* | | NA |
| 48A | SIAS-B | HP-6900-MOV (4) | Containment Vent Isolation | $\leq$ 15 |
| | SIAS-A | HP-6901-MOV (4) | | $\leq$ 15 |
| 48B | NA | HP-104 | Hydrogen Purge Inlet | NA |
| | NA | HP-6903-MOV | | NA |

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

| PENETRATION NO. | ISOLATION CHANNELS | ISOLATION VALVE IDENTIFICATION NO. | FUNCTION | ISOLATION TIME (SECONDS) |
|---|---|---|---|---|
| 49A | NA | PS-6540B-SV* | Hydrogen Sample | NA |
| | NA | PS-6507B-SV* | | NA |
| 49B | NA | PS-6540C-SV* | Hydrogen Sample | NA |
| | NA | PS-6507C-SV* | | NA |
| 49C | NA | PS-6540D-SV* | Hydrogen Sample | NA |
| | NA | PS-6507D-SV* | | NA |
| 50 | NA | Blind Flange | ILRT | NA |
| | NA | Blind Flange | | NA |
| 59 | NA | SFP-170 | Refueling Pool Inlet | NA |
| | NA | SFP-171 | | NA |
| 60 | NA | ES-144 | Steam to Reactor Head Laydown | NA |
| | NA | ES-142 | | NA |
| 61 | NA | SFP-176 | Refueling Pool Outlet | NA |
| | NA | SFP-174 | | NA |
| | NA | SFP-172 | | NA |
| | NA | SFP-189 | | NA |
| 62 | SIAS A | PH-6579-MOV | Containment Heating Outlet | $\leq$ 13 |
| 64 | NA | PH-376 | Containment Heating Inlet | NA |

TABLE 3.6-1 (Continued)

TABLE NOTATION

* May be open on an intermittent basis under administrative control.

** Containment purge isolation valves isolation times will only apply in MODE 6 when the valves are required to be OPERABLE and they are open. Isolation time for containment purge isolation valves is NA for MODES 1, 2, 3 and 4 per Technical Specification 3/4 6.1.7, during which time these valves must remain closed.

(1) Manual or remote manual valve which is closed during plant operation.

(2) May be opened below 300°F to establish shutdown cooling flow.

(3) Containment purge valves will be shut in MODES 1, 2, 3, and 4 per Technical Specification 3/4 6.1.7.

(4) Containment vent isolation valves shall be opened for containment pressure control, airborne radioactivity control, and surveillance testing purposes only.

3/4.9 REFUELING OPERATIONS

3/4.9.9 CONTAINMENT PURGE VALVE ISOLATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.9 The Containment Purge Valve Isolation System shall be **OPERABLE**.

APPLICABILITY: During **CORE ALTERATIONS** or movement of irradiated fuel within the containment.

ACTION: With the Containment Purge Valve Isolation System inoperable, close each of the penetrations providing direct access from the containment atmosphere to the outside atmosphere. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.9 The Containment Purge Valve Isolation System shall be demonstrated **OPERABLE** within 72 hours prior to the start of and at least once per 7 days during **CORE ALTERATIONS** by verifying that containment purge valve isolation occurs on manual initiation and on a high radiation test signal from the containment radiation monitoring instrumentation channels.

and the isolation times are within the limits when tested pursuant to Technical Specification 4.0.5.

3/4.6.1.7 Containment Purge Supply and Exhaust Isolation Valves

This limitation ensures that containment purge supply and exhaust valves will be maintained shut during MODES where containment pressurization may occur as the result of LOCA or steam line break conditions. The capability of these valves to close during a containment pressurization event and provide isolation of these lines has not been established.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

3/4.6.2.1 Containment Spray System

The OPERABILITY of the Containment Spray System ensures that containment depressurization and cooling capability will be available in the event of a LOCA. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the accident analyses.

3/4.6.2.2 Containment Cooling System

The OPERABILITY of the Containment Cooling System ensures that 1) the containment air temperature will be maintained within limits during normal operation, and 2) adequate heat removal capacity is available during post-LOCA conditions.

3/4.6.3 IODINE REMOVAL SYSTEM

The OPERABILITY of the containment iodine filter trains ensures that sufficient iodine removal capability will be available in the event of a LOCA. The reduction in containment iodine inventory reduces the resulting SITE BOUNDARY radiation doses associated with containment leakage. The operation of this system and resultant iodine removal capacity are consistent with the assumptions used in the LOCA analyses.

3/4.6.4 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensure 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. Containme.^ isolation within the time limits specified ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

(IN PLANT procedures)

ATTACHMENT (2)

UNIT 2

TECHNICAL SPECIFICATION

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CHANNEL CHECK

1.6 A **CHANNEL CHECK** shall be the qualitative assessment of channel behavior during operation by observation. This determination shall include, where possible, comparison of the channel indication and/or status with other indications and/or status derived from independent instrument channels measuring the same parameter.

CHANNEL FUNCTIONAL TEST

1.7 A **CHANNEL FUNCTIONAL TEST** shall be:

a. Analog channels - the injection of a simulated signal into the channel as close to the primary sensor as practicable to verify **OPERABILITY** including alarm and/or trip functions.

b. Bistable channels - the injection of a simulated signal into the channel sensor to verify **OPERABILITY** including alarm and/or trip functions.

CONTAINMENT INTEGRITY

1.8 **CONTAINMENT INTEGRITY** shall exist when:

1.8.1 All penetrations required to be closed during accident conditions are either:

a. Capable of being closed by an **OPERABLE** Containment Automatic Isolation Valve System, or

b. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except ~~as provided in Table 3.6-1 of~~ Specification 3.6.4.1.

1.8.2 All equipment hatches are closed and sealed,

1.8.3 Each airlock is in compliance with the requirements of Specification 3.6.1.3,

1.8.4 The containment leakage rates are within the limits of Specification 3.6.1.2, and

1.8.5 The sealing mechanism associated with each penetration (e.g., welds, bellows or O-rings) is **OPERABLE**.

for valves that are open under administrative control as permitted by

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION: Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all 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 their positions, except ~~as provided in Table 3.6-1 of~~ Specification 3.6.4.1.

b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1 3.

c. By verifying that the equipment hatch is closed and sealed, prior to entering MODE 4 following a shutdown where the equipment hatch was opened, by conducting a Type B test per 10 CFR Part 50, Appendix J.

for valves that are open under administrative control as permitted by

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Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed, or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such ~~verification~~ need not be performed more often then once per 92 days.

Add INSERT A

INSERT A

(*) Hydrogen purge containment vent isolation valves shall be opened for containment pressure control, airborne radioactivity control, and surveillance testing purposes only.

(#) The shutdown cooling isolation valves may be opened when the RCS temperature is below 300° F to establish shutdown cooling flow.

3/4.6 CONTAINMENT SYSTEMS

3/4.6.4 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.4.1 ~~The~~ Each containment isolation valve~~s specified in Table 3.6-1~~ shall be OPERABLE ~~with isolation times as shown in Table 3.6-1~~.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: With one or more of the isolation valve(s) ~~specified in Table 3.6-1~~ inoperable, either:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate the affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

e. The provisions of Specification 3.0.4 are not applicable provided that the affected penetration is isolated.

SURVEILLANCE REQUIREMENTS

4.6.4.1.1 ~~The~~ Each Containment isolation valve~~s specified in Table 3.6-1~~ 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 performance of a cycling test and verification of isolation time.

Add INSERT B

**INSERT B**

(*) Valves that are normally closed may be opened on an intermittent basis under administrative control.

(#) Containment purge isolation valves isolation times will only apply in **MODE** 6 when the valves are required to be **OPERABLE** and they are open. Isolation times for containment purge isolation valves is NA for **MODES** 1, 2, 3 and 4 per Technical Specification 3/4 6.1.7, during which time these valves must remain closed.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.4.1.2 Each containment isolation valve ~~specified in Table 3.6-1~~ shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per REFUELING INTERVAL by:

a. Verifying that on each containment isolation Channel A or Channel B test signal, each required isolation valve actuates to its isolation position.

b. Verifying that on each Containment Radiation-High Test Channel A or Channel B test signal, both required containment purge valves actuate to their isolation position.

c. Verifying that on each Safety Injection Actuation Channel A or Channel B test signal, each required isolation valve actuates to its isolation position.

4.6.4.1.3 The isolation time of each power-operated or automatic containment isolation valve ~~in Table 3.6-1~~ shall be determined to be within its limit when tested pursuant to Technical Specification 4.0.5.

## TABLE 3.6-1

## CONTAINMENT ISOLATION VALVES

| PENETRATION NO. | ISOLATION CHANNELS | ISOLATION VALVE IDENTIFICATION NO. | FUNCTION | ISOLATION TIME (SECONDS) |
|---|---|---|---|---|
| 1A | SIAS A | PS-5465-CV | R.C. and Pressurizer Sampling | ≤ 7 |
| | SIAS A | PS-5466-CV | | ≤ 7 |
| | SIAS A | PS-5467-CV | | ≤ 7 |
| | SIAS B | PS-5464-CV | | ≤ 7 |
| 1B | SIAS A | WGS-2180-CV | Containment Vent Header to Waste Gas | ≤ 7 |
| | SIAS B | WGS-2181-CV | | ≤ 7 |
| 1C | SIAS A | CVC-506-CV | RCP Seals Controlled Bleedoff | ≤ 7 |
| | SIAS B | CVC-505-CV | | ≤ 7 |
| 1D | NA | PS-6529SV* | Post Accident Sampling Liquid Return to RC Drain Tank | NA |
| 2A | SIAS A | CVC-515-CV | Letdown Line | ≤ 13 |
| | SIAS B | CVC-516-CV | | ≤ 13 |
| | NA | CVC-105 | | NA |
| | NA | CVC-103 | | NA |
| 2B | NA | CVC-517-CV | Charging Line | NA |
| | NA | CVC-518-CV | | NA |
| | NA | CVC-519-CV | | NA |
| | NA | CVC-435-RV | | NA |
| | NA | CVC-184 | | NA |

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

| PENETRATION NO. | ISOLATION CHANNELS | ISOLATION VALVE IDENTIFICATION NO. | FUNCTION | ISOLATION TIME (SECONDS) |
|---|---|---|---|---|
| 7A | NA<br>NA | Blind Flange<br>ILRT-1 | ILRT | NA<br>NA |
| 7B | NA<br>NA | Blind Flange<br>ILRT-2 | ILRT | NA<br>NA |
| 8 | SIAS A<br>SIAS B | EAD-5462-MOV<br>EAD-5463-MOV | Containment Normal Sump | ≤ 13<br>≤ 13 |
| 9 | NA<br>NA | SI-340<br>SI-326 | Containment Spray | NA<br>NA |
| 10 | NA<br>NA | SI-330<br>SI-316 | Containment Spray | NA<br>NA |
| 13 | CRS A<br>CRS B | CPA-1410-CV(3)<br>CPA-1411-CV(3) | Purge Air Inlet | ≤ 7**<br>≤ 7** |
| 14 | CRS A<br>CRS B | CPA-1412-CV(3)<br>CPA-1413-CV(3) | Purge Air Outlet | ≤ 7**<br>≤ 7** |
| 15 | SIAS A<br>SIAS B | RE-5291-CV<br>RE-5292-CV | Purge Air Monitor | ≤ 7<br>≤ 7 |
| 16 | CIS A | CC-3832-CV | Component Cooling Water Inlet | ≤ 18 |
| 18 | CIS B | CC-3833-CV | Component Cooling Water Outlet | ≤ 18 |

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

| PENETRATION NO. | ISOLATION CHANNELS | ISOLATION VALVE IDENTIFICATION NO. | FUNCTION | ISOLATION TIME (SECONDS) |
|---|---|---|---|---|
| 19A | NA | IA-175 | Instrument Air | NA |
| | CIS A | IA-2080-MOV | | ≤ 13 |
| 19B | NA | PA-137* | Plant Air | NA |
| | NA | PA-1044* | | NA |
| 20A | NA | $N_2$-347 | Nitrogen Supply | NA |
| | NA | $N_2$-612-CV* | | NA |
| | NA | $N_2$-622-CV* | | NA |
| | NA | $N_2$-632-CV* | | NA |
| | NA | $N_2$-642-CV* | | NA |
| 20B | NA | $N_2$-348 | Nitrogen Supply | NA |
| | NA | $N_2$-395 | | NA |
| 20C | NA | $N_2$-349 | Nitrogen Supply | NA |
| | NA | $N_2$-398 | | NA |
| 23 | SIAS A | RCW-4260-CV | R.C. Drain Tank Drains | ≤ 7 |
| 24 | SIAS B | PS-6531-SV | Oxygen Sample Line | ≤ 7 |
| 37 | NA | PSW-1020 | Plant Water | NA |
| | NA | PSW-1009 | | NA |
| 38 | NA | DW-5460-CV* | Demineralized Water | NA |
| 39 | NA | SI-463 | Safety Injection Tank | NA |
| | NA | SI-455 | Test Line | NA |

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

| PENETRATION NO. | ISOLATION CHANNELS | ISOLATION VALVE IDENTIFICATION NO. | FUNCTION | ISOLATION TIME (SECONDS) |
|---|---|---|---|---|
| 41 | NA | SI-652-MOV [2] | Shutdown Cooling | NA |
| | NA | SI-651-MOV [2] | | NA |
| 44 | NA | FP-145-A | Fire Protection | NA |
| | NA | FP-145-B | | NA |
| | NA | FP-6200-MOV* | | NA |
| 47A | NA | PS-6540A-SV* | Hydrogen Sample Outlet | NA |
| | NA | PS-6507A-SV* | | NA |
| 47B | NA | PS-6540E-SV* | Hydrogen Sample Outlet | NA |
| | NA | PS-6507E-SV* | | NA |
| 47C | NA | PS-6540F-SV* | Hydrogen Sample Outlet | NA |
| | NA | PS-6507F-SV* | | NA |
| 47D | NA | PS-6540G-SV* | Hydrogen Sample Return | NA |
| | NA | PS-6507G-SV* | | NA |
| 48A | SIAS A | HP-6900-MOV[4] | Containment Vent Isolation | $\leq$ 15 |
| | SIAS B | HP-6901-MOV[4] | | $\leq$ 15 |
| 48B | NA | HP-104 | Hydrogen Purge Inlet | NA |
| | NA | HP-6903-MOV | | NA |
| 49A | NA | PS-6540B-SV* | Hydrogen Sample | NA |
| | NA | PS-6507B-SV* | | NA |
| 49B | NA | PS-6540C-SV* | Hydrogen Sample | NA |
| | NA | PS-6507C-SV* | | NA |

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

| PENETRATION NO. | ISOLATION CHANNELS | ISOLATION VALVE IDENTIFICATION NO. | FUNCTION | ISOLATION TIME (SECONDS) |
|---|---|---|---|---|
| 49C | NA | PS-6540D-SV* | Hydrogen Sample | NA |
| | NA | PS-6507D-SV* | | NA |
| 50 | NA | Blind Flange | ILRT | NA |
| | NA | Blind Flange | | NA |
| 59 | NA | SFP-178 | Refueling Pool Inlet | NA |
| | NA | SFP-179 | | NA |
| 60 | NA | ES-144 | Steam to Reactor Head Laydown | NA |
| | NA | ES-142 | | NA |
| 61 | NA | SFP-184 | Refueling Pool Outlet | NA |
| | NA | SFP-182 | | NA |
| | NA | SFP-180 | | NA |
| | NA | SFP-186 | | NA |
| 62 | SIAS A | PH-6579-MOV | Containment Heating Outlet | $\leq$ 13 |
| 64 | NA | PH-387 | Containment Heating Inlet | NA |

TABLE 3.6-1 (Continued)

TABLE NOTATION

(1) Manual or remote manual valve which is closed during plant operation.

(2) May be opened below 300°F to establish shutdown cooling flow.

(3) Containment purge valves will be shut in MODES 1, 2, 3, and 4 per Technical Specification 3/4 6.1.7.

* May be open on an intermittent basis under administrative control.

** Containment purge isolation valves isolation times will only apply in MODE 6 when the valves are required to be OPERABLE and they are open. Isolation time for containment purge isolation valves is NA for MODES 1, 2, 3 and 4 per Technical Specification 3/4.6.1.7, during which time these valves must remain closed.

(4) Containment vent isolation valves shall be opened for containment pressure control, airborne radioactivity control, and surveillance testing purposes only.

3/4.9 REFUELING OPERATIONS

3/4.9.9 CONTAINMENT PURGE VALVE ISOLATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.9 The Containment Purge Valve Isolation System shall be OPERABLE.

APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.

ACTION: With the Containment Purge Valve Isolation System inoperable, close each of the penetrations providing direct access from the containment atmosphere to the outside atmosphere. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.9 The Containment Purge Valve Isolation System shall be demonstrated OPERABLE within 72 hours prior to the start of and at least once per 7 days during CORE ALTERATIONS by verifying that containment purge valve isolation occurs on manual initiation and on a high radiation test signal from the containment radiation monitoring instrumentation channels.

and the isolation times are within the limits when tested pursuant to Technical Specification 4.0.5.

3/4.6.1.7 Containment Purge Supply and Exhaust Isolation Valves

This limitation ensures that containment purge supply and exhaust valves will be maintained shut during **MODES** where containment pressurization may occur as the result of LOCA or steam line break conditions. The capability of these valves to close during a containment pressurization event and provide isolation of these lines has not been established.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

3/4.6.2.1 Containment Spray System

The **OPERABILITY** of the Containment Spray System ensures that containment depressurization and cooling capability will be available in the event of a LOCA. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the accident analyses.

3/4.6.2.2 Containment Cooling System

The **OPERABILITY** of the Containment Cooling System ensures that 1) the containment air temperature will be maintained within limits during normal operation, and 2) adequate heat removal capacity is available during post-LOCA conditions.

3/4.6.3 IODINE REMOVAL SYSTEM

The **OPERABILITY** of the containment iodine filter trains ensures that sufficient iodine removal capability will be available in the event of a LOCA. The reduction in containment iodine inventory reduces the resulting **SITE BOUNDARY** radiation doses associated with containment leakage. The operation of this system and resultant iodine removal capacity are consistent with the assumptions used in the LOCA analyses.

3/4.6.4 CONTAINMENT ISOLATION VALVES

The **OPERABILITY** of the containment isolation valves ensure 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. Containment isolation within the time limits specified ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

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