

## 3/4.6 CONTAINMENT SYSTEMS

### 3/4.6.1 PRIMARY CONTAINMENT

#### CONTAINMENT INTEGRITY

#### LIMITING CONDITION FOR OPERATION

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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

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4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

- a1. In accordance with the Surveillance Frequency Control Program by verifying that each containment manual valve or blind flange that is located outside containment and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls. Valves and blind flanges in high radiation areas may be verified by use of administrative controls.
- a2. Prior to entering Mode 4 from Mode 5 if not performed within the last 92 days by verifying that each containment manual valve or blind flange that is located inside containment and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls. Valves and blind flanges in high radiation areas may be verified by use of administrative controls.
- b. By verifying that each containment air lock is OPERABLE per Specification 3.6.1.3.
- c. After each closing of a penetration subject to Type B testing, except containment air locks, if opened following a Type A or B test, by leak rate testing in accordance with the Containment Leakage Rate Testing Program.
- d. In accordance with the Surveillance Frequency Control Program by verifying that the surveillance requirements of 4.6.2.3.a are met for penetrations associated with the containment fan coil units.
- e. In accordance with the Surveillance Frequency Control Program by verifying that the surveillance requirements of 4.6.2.3.d are met for penetrations associated with the containment fan coil units.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

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3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate (Type A test) in accordance with the Containment Leakage Rate Testing Program.
- b. A combined leakage rate in accordance with the Containment Leakage Rate Testing Program for all penetrations and valves subject to Type B and C tests.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With either (a) the measured overall integrated containment leakage rate (Type A test) not in accordance with the Containment Leakage Rate Testing Program or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests not in accordance with the Containment Leakage Rate Testing Program, restore the leakage rate(s) to within the limit(s) prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

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4.6.1.2 The containment leakage rates shall be demonstrated as follows:

- a. Type A tests shall be in accordance with the Containment Leakage Rate Testing Program.
- b. Type B and C tests shall be conducted in accordance with the Containment Leakage Rate Testing Program.
- c. Air locks shall be tested and demonstrated OPERABLE in accordance with the Containment Leakage Rate Testing Program.

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CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

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3.6.1.3 Each containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and:
- b. An overall air lock leakage rate in accordance with the Containment Leakage Rate Testing Program.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

Notes

- (1) Entry and exit is permissible to perform repairs on the affected air lock components.
  - (2) Separate condition entry is allowed for each air lock.
  - (3) Required ACTIONS a.1, a.2, and a.3 are not applicable if both doors in the same air lock are inoperable and condition c. is entered.
  - (4) Required ACTIONS b.1, b.2, and b.3 are not applicable if both doors in the same air lock are inoperable and condition c. is entered.
  - (5) Enter applicable Conditions and required Actions of LCO 3.6.1, "Primary Containment," when air lock leakage results in exceeding the overall containment leakage rate.
- a. One or more containment air locks with one containment airlock door inoperable:
    1. Verify the OPERABLE door is closed in the affected air lock within 1 hour, and:
    2. Lock the OPERABLE door closed in the affected air lock within 24 hours, and:
    3. Verify the OPERABLE door is locked closed in the affected air lock once per 31 days. Entry and exit is permissible for 7 days (from initial LCO entry) under administrative controls if one door is inoperable in each air lock. Air lock doors in high radiation areas may be verified locked closed by administrative means.
  - b. One or more containment air locks with only the containment air lock interlock mechanism inoperable.
    1. Verify an OPERABLE door is closed in the affected air lock within 1 hour, and:
    2. Lock an OPERABLE door closed in the affected air lock within 24 hours, and:
    3. Verify an OPERABLE door is locked closed in the affected air lock once per 31 days. Entry and exit of containment is permissible under the control of a dedicated individual for the duration of the entry to ensure only one door is open at a time. Air lock doors in high radiation areas may be verified locked closed by administrative means.

## CONTAINMENT SYSTEMS

### CONTAINMENT AIR LOCKS

#### LIMITING CONDITION FOR OPERATIONS (Continued)

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- c. One or more containment air locks inoperable for reasons other than condition a. or b.
  - 1. Immediately initiate action to evaluate overall containment leakage per LCO 3.6.1, and:
  - 2. Verify that at least one door is closed in the affected air lock within 1 hour, and:
  - 3. Restore the air lock to OPERABLE status within 24 hours.
- d. If the ACTIONS and associated completion times of a., b., or c. cannot be met, be in Hot Standby within 6 hours and in Cold Shutdown within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. By verifying seal leakage rate in accordance with the Containment Leakage Rate Testing program.
- b. By conducting an overall air lock leakage test in accordance with the Containment Leakage Rate Testing Program.
- c. In accordance with the Surveillance Frequency Control Program by verifying that only one door in each air lock can be opened at a time.

## CONTAINMENT SYSTEMS

### INTERNAL PRESSURE

#### LIMITING CONDITION FOR OPERATION

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3.6.1.4 Primary containment internal pressure shall be maintained between -1.5 and +0.3 psig.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the containment internal pressure outside of the limits above, restore the internal pressure to within the limits within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.4 The primary containment internal pressure shall be determined to be within the limits in accordance with the Surveillance Frequency Control Program.

## CONTAINMENT SYSTEMS

### AIR TEMPERATURE

#### LIMITING CONDITION FOR OPERATION

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3.6.1.5 Primary containment average air temperature shall not exceed 120°F.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the containment average air temperature greater than 120°F, reduce the average air temperature to within the limit within 8 hours, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.5 Verify containment average air temperature is within limit in accordance with the Surveillance Frequency Control Program.

CONTAINMENT SYSTEMS

CONTAINMENT STRUCTURAL INTEGRITY

LIMITING CONDITIONS FOR OPERATION

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3.6.1.6 The structural integrity of the containment shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.6.1.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the structural integrity of the containment not conforming to the above requirements, restore the structural integrity to within the limits within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

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4.6.1.6.1 Containment Surfaces The structural integrity of the exposed accessible interior and exterior surfaces of the containment, including the liner plate, shall be determined in accordance with the Containment Leakage Rate Testing Program

4.6.1.6.2 Reports Any abnormal degradation of the containment structure detected during the above required inspections shall be evaluated for reportability pursuant to 10CFR50.72 and 10CFR50.73. The evaluation shall be documented and shall include a description of the condition of the concrete, the inspection procedure, the tolerances on cracking, and the corrective action taken.

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Note that the elements of TS 3.6.1.7 and 4.6.1.7 were relocated to TS 3/4.6.3.