

## 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 of less than or equal to  $L_a$ , 0.30% by weight of the containment air per 24 hours at  $P_a$ , 14.68 psig.
- b. A combined leakage rate of less than  $0.60 L_a$  for all penetrations and valves subject to Type B and C tests, when pressurized to  $P_a$ , and
- c. A combined bypass leakage rate of less than  $0.07 L_a$  for all penetrations identified in Table 3.6-1 as secondary containment bypass leakage paths when pressurized to  $P_a$ .

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

#### ACTION:

With: (a) the measured overall integrated containment leakage rate exceeding  $0.75 L_a$ , or (b) the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding  $0.60 L_a$ , or (c) the combined bypass leakage rate exceeding  $0.07 L_a$ , restore the overall integrated leakage rate to less than  $0.75 L_a$  and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than  $0.60 L_a$ , and the combined bypass leakage rate to less than  $0.07 L_a$  prior to increasing the Reactor Coolant System temperature above 200°F.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.2 Type A containment leakage rates shall be demonstrated as required by 10 CFR 50.54(o) and Appendix J of 10 CFR Part 50, Option B, as modified by approved exemptions, and in accordance with the guidelines of Regulatory Guide 1.163, September, 1995.

## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- a. Deleted
- b. Deleted
- c. The accuracy of each Type A test shall be verified by a supplemental test in accordance with Regulatory Guide 1.163, September, 1995.
- d. Type B and C tests shall be conducted, in accordance with 10 CFR 50.54(o) and 10 CFR 50 Appendix J, Option A, with gas at a pressure not less than  $P_a$ , 14.68 psig, at intervals no greater than 24 months except for tests involving:
  - 1) Air locks,
  - 2) Purge supply and exhaust isolation valves with resilient material seals, and
  - 3) Dual-ply bellows assemblies on containment penetrations between the containment building and the annulus.

### 3/4.6 CONTAINMENT SYSTEMS

#### BASES

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#### 3/4.6.1 PRIMARY CONTAINMENT

##### 3/4.6.1.1 CONTAINMENT INTEGRITY

Primary CONTAINMENT INTEGRITY ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the safety analyses. This restriction, in conjunction with the leakage rate limitation, will limit the SITE BOUNDARY radiation doses to within the dose guideline values of 10 CFR Part 100 during accident conditions.

##### 3/4.6.1.2 CONTAINMENT LEAKAGE

The limitations on containment leakage rates ensure that the total containment leakage volume will not exceed the value assumed in the safety analyses at the peak accident pressure,  $P_a$ . As an added conservatism, the as-left overall integrated leakage rate is further limited to less than or equal to  $0.75 L_a$  to account for possible degradation of the containment leakage barriers between leakage tests.

The surveillance testing for measuring Type A leakage rates is consistent with the requirements of Appendix J of 10 CFR 50, Option B. Type B and C tests are conducted in accordance with 10 CFR 50 Appendix J, Option A.

##### 3/4.6.1.3 CONTAINMENT AIR LOCKS

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on CONTAINMENT INTEGRITY and containment leak rate. Surveillance testing of the air lock seals provide assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.

##### 3/4.6.1.4 INTERNAL PRESSURE

The limitations on containment internal pressure ensure that: (1) the containment structure is prevented from exceeding its design negative pressure differential with respect to the outside atmosphere of 1.5 psig, and (2) the containment peak pressure does not exceed the design pressure of 15 psig during LOCA conditions.