

Attachment to
ULNRC-2699

PROPOSED TECHNICAL SPECIFICATION CHANGES

Bases 3/4.6.1.2

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REVISION 1

3/4.6 CONTAINMENT SYSTEMS

BASES

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 accident analyses at the peak accident pressure, P_a . As an added conservatism, the measured overall integrated leakage rate is further limited to less than or equal to $0.75 L_a$, during performance of the periodic test to account for possible degradation of the containment leakage barriers between leakage tests.

The surveillance testing for measuring leakage rates are consistent with the requirements of Appendix J of 10 CFR Part 50.

INSERT 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 provides assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.

INSERT A

The following exemptions have been granted to the requirements of Appendix J of 10 CFR Part 50:

1. Section III.A.1(a) - an exemption to the requirement to stop the Type A test if excessive leakage is determined. This exemption allows the satisfactory completion of the Type A test if the leakage can be isolated and appropriately factored into the results. (NRC Letter, dated October 22, 1991)
2. Section III.A.b(b) - an exemption for the acceptance criteria, in lieu of the present single criterion of the total measured containment leakage rate being less than 0.75 of the maximum allowable leakage rate, L_a , the "as found" allowable leakage rate will be L_a and the "as left" allowable leakage rate will be less than $0.75 L_a$. (NRC Letter, dated October 22, 1991)
3. Section III.D.1(a) - an exemption that removes the requirement that the third test of each set of three Type A test be conducted when the plant is shutdown for the 10-year plant inservice inspection. (NRC Letter, dated October 22, 1991)

Exemptions 1 and 2 allow the continuance of a Type A test when excessive leakage is found provided that significant leaks are identified and isolated. The "as found" acceptance criteria of L_a is determined from the measured leakage rate during the performance of a Type A test plus any leakage improvements prior to the test. Leakage improvements are defined as the difference between the pre-LLRT and post-LLRT done on containment penetrations prior to the start of the Type A test. The "as left" acceptance criteria of $0.75 L_a$ is based on the measured leakage rate determined during the test. It should be noted that additional adjustments for non-standard lineup and changes in containment volume are added to the measured leakage rate for both "as found" and "as left" determinations. This adjusted "as found" leakage rate is to be used in determining the scheduling of the periodic Type A test in accordance with Section III.A.6 of Appendix J.

The acceptability of the modified Type A test can be determined by calculating the adjusted "as left" containment overall integrated leakage rate and comparing it to the acceptance criteria of 0.75 L_a. The adjusted "as left" Type A leakage rate is determined by adding the local leakage rates measured, after any repairs and/or adjustments to those previously isolated leakage paths, to the leakage rate determined in the modified Type A test.

The only differences between this approach and Appendix J requirements are that: (1) the potentially excessive leakage paths will be repaired and/or adjusted after the Type A test is completed; and (2) the Type A test leakage rate is partially determined by calculations rather than by direct measurement.