

ATTACHMENT 5
TECHNICAL SPECIFICATION MARK-UPS

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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 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

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 Specification 3.6.3;
- b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3, and
- ~~c. After each closing of each penetration subject to Type B testing, except the containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at a pressure not less than Pa, and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2, for all other Type B and C penetrations, the combined leakage rate is less than 0.60 La.~~

*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 than once per 92 days.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to in accordance with the Containment Leakage Rate Testing Program.

- 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 .~~
- 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 .~~

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

ACTION:

With either the measured overall integrated containment leakage rate exceeding 0.75 L_a or the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding 0.60 L_a the allowances in the Containment Leakage Rate Testing Program, restore the overall integrated leakage rate to less than 0.75 L_a and the combined leakage rate for all penetrations subject to Type B and C tests to less than 0.60 L_a within the allowances in the Containment Leakage Rate Testing Program 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

4.6.1.2 Perform required visual examinations and leakage rate testing, ~~except for containment air lock testing,~~ in accordance with 10 CFR 50, Appendix J, ~~as modified by approved exemptions.~~ the Containment Leakage Rate Testing Program.

The provisions of Specification 4.0.2 are not applicable.

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

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 of less than or equal to 0.05 La at Pa7.~~

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

ACTION:

- a. With one containment air lock door inoperable:
 1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed;
 2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days;
 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and
 4. The provisions of Specification 3.0.4 are not applicable.
- b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. ~~Within 72 hours following each closing, except when the air lock is being used for multiple entries, then at least once per 72 hours, by verifying seal leakage is less than 0.01 La as determined by precision flow measurements when measured for at least 30 seconds with the volume between the seals at a constant pressure not less than Pa, By verifying leakage rates in accordance with the Containment Leakage Rate Testing Program.~~
- b. ~~By conducting overall air lock leakage tests at not less than Pa and verifying the overall air lock leakage rate is within its limit:~~
 - 1) ~~At least once per 6 months,* and~~
 - 2) ~~Prior to establishing CONTAINMENT INTEGRITY when maintenance has been performed on the air lock that could affect the air lock sealing capability.**~~
- eb. At least once per 6 months by verifying that only one door in each air lock can be opened at a time.
- ec. By verifying at least once per 7 days that the instrument air pressure in the header to the personnel airlock seals is ≥ 90 psig.
- ed. By verifying the door seal pneumatic system OPERABLE at least once per 18 months by conducting a seal pneumatic system leak test and verifying one of the following:
 - 1) That system pressure does not decay more than 1.5 psi from 90 psig minimum within 24 hours, or
 - 2) That system pressure does not decay more than .50 psi from 90 psig minimum within 8 hours

~~*The provisions of Specification 4.0.2 are not applicable.~~

~~**This represents an exemption to Appendix J, paragraph III.D.2 of 10 CFR Part 50.~~

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS

- 4.6.1.7.1 Each 48-inch containment purge supply and exhaust isolation valve shall be verified to be sealed closed at least once per 31 days.
- 4.6.1.7.2 ~~At least once per 6 months on a STAGGERED TEST BASIS~~ In accordance with the Containment Leakage Rate Testing Program, the inboard and outboard isolation valves with resilient material seals in each sealed closed 48-inch containment purge supply and exhaust penetration shall be demonstrated OPERABLE by verifying that the measured leakage rate is less than 0.05 La when pressurized to Pa.
- 4.6.1.7.3 ~~At least once per 3 months~~ In accordance with the Containment Leakage Rate Testing Program each 18-inch supplementary containment purge supply and exhaust isolation valve with resilient material seals shall be demonstrated OPERABLE by verifying that the measured leakage rate is less than 0.01 La when pressurized to Pa.
- 4.6.1.7.4 At least once per 31 days each 18-inch supplementary containment purge supply and exhaust isolation valve shall be verified to be closed or open in accordance with Specification 3.6.1.7.b.

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 guidelines 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, Pa (41.2 psig). As an added conservatism, the measured overall integrated leakage rate is further limited to less than or equal to 0.75 La during before returning the Unit to service following 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 is consistent with the requirements of ~~Appendix J~~ of 10 CFR Part 50, Appendix J, Option B, and in accordance with the Containment Leakage Rate Testing Program.

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. The surveillance testing for measuring leakage rates is consistent with the requirements of 10 CFR 50, Appendix J, Option B and in accordance with the Containment Leakage Rate Testing Program.

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 3.5 psig, and (2) the containment peak pressure does not exceed the design pressure of 56.5 psig during LOCA or steam line break conditions.

The maximum peak pressure expected to be obtained from a LOCA or steam line event is 41.2 psig. The limit of 0.3 psig for initial positive containment pressure will limit the total pressure to 41.2 psig (Pa), which is less than design pressure and is consistent with the safety analyses.

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

- 10) Limitation on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

h) Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I of 10 CFR Part 50, and (3) include the following:

- 1) Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,
- 2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and
- 3) Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

i) Diesel Fuel Oil Testing Program

A diesel fuel oil testing program to implement required testing of both new fuel oil and stored fuel oil shall be established. The program shall include sampling and testing requirements, and acceptance criteria, all based on applicable ASTM Standards. The purpose of the program is to establish the following:

- a. Acceptability of new fuel oil for use prior to addition to storage tanks by determining that the fuel oil has:
 1. an API gravity or absolute specific gravity within limits,
 2. a flash point and kinematic viscosity within limits for ASTM 2D fuel oil, and
 3. a clear and bright appearance with proper color;
- b. Other properties for ASTM 2D fuel oil are within limits within 30 days following sampling and addition to storage tanks; and
- c. Total particulate concentration of fuel oil is ≤ 10 mg/1 when tested every 31 days using a test method based on ASTM D-2276.

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

6.8.3 j) Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the primary containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Testing Program", dated September, 1995.

Peak calculated primary containment internal pressure for the design basis loss of coolant accident (LOCA), Pa is 41.2 psig.

The maximum allowable primary containment leakage rate, La, is 0.3% of primary containment air weight per day.

Leakage rate acceptance criteria are:

- a. Primary containment overall leakage rate acceptance criterion is ≤ 1.0 La. During the first unit start-up following testing in accordance with this program, the leakage rate acceptance criteria are ≤ 0.60 La for the combined Type B and Type C tests, and ≤ 0.75 La AS-LEFT and ≤ 1.0 La AS-FOUND for Type A tests.
- b. Air lock testing acceptance criteria for the overall air lock leakage rate is ≤ 0.05 La when tested at \geq Pa.

The provisions of Surveillance Requirement 4.0.2 do not apply to the test intervals specified in the Containment Leakage Rate Testing Program.

The provisions of Surveillance Requirement 4.0.3 apply to the Containment Leakage Rate Testing Program.