SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|---|---|---|
| SR 3.6.1.2.1 | ----------NOTES----------<br>1. An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test.<br><br>2. ~~During MODES 1, 2, and 3,~~ Results shall be evaluated against acceptance criteria ~~of~~ applicable to SR 3.6.1.1.1. ~~in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions.~~<br>---------- | ~~NOTE SR 3.0.2 is not applicable~~ |
| | Perform required primary containment air lock leakage rate testing in accordance with the Primary Containment Leakage Rate Testing Program. ~~10 CFR 50, Appendix J, as modified by approved exemptions.~~<br><br>Verify the combined leakage rate is ≤ 13,500 cc/hr for all required annulus bypass leakage paths when pressurized to ≥ $P_a$. | In accordance with the Primary Containment Leakage Rate Testing Program ~~10 CFR 50, Appendix J, as modified by approved exemptions~~ |
| SR 3.6.1.2.2 | Verify primary containment air lock seal air flask pressure is ≥ 90 psig. | 7 days |
| SR 3.6.1.2.3 | ----------NOTE----------<br>Only required to be performed upon entry or exit through the primary containment air lock.<br>----------<br><br>Verify only one door in the primary containment air lock can be opened at a time. | 184 days |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | | FREQUENCY |
|---|---|---|
| SR 3.6.1.3.10 | ----------NOTE----------<br>Only required to be met in MODES 1, 2, and 3.<br>----------<br>Verify leakage rate through the valves served by each division of MS-PLCS is ≤ 150 scfh per division when tested at ≥ $P_a$. | ~~NOTE~~<br>~~SR 3.0.2 is not applicable~~<br>In accordance with the Primary Containment Leakage Rate Testing Program ~~10 CFR 50, Appendix J, as modified by approved exemptions~~ |
| SR 3.6.1.3.11 | ----------NOTE----------<br>Only required to be met in MODES 1, 2, and 3.<br>----------<br>Verify combined leakage rate ~~of 1 gpm times the total number of PCIVs~~ through hydrostatically tested lines that penetrate the primary containment is within limits. ~~not exceeded when these isolation valves are tested at ≥~~ 1.1 $P_a$. | ~~NOTE~~<br>~~SR 3.0.2 is not applicable.~~<br>In accordance with the Primary Containment Leakage Rate Testing Program ~~10 CFR 50, Appendix J, as modified by approved exemptions~~ |

(continued)

5.5 Programs and Manuals

5.5.11 Technical Specifications (TS) Bases Control Program (continued)

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the USAR.

d. Proposed changes that do not meet the criteria of either Specification 5.5.11.b.1 or Specification 5.5.11.b.2 above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

5.5.12 Biofouling Prevention and Detection

A program, which will include the procedures to prevent biofouling of safety-related equipment, to assure detection of Corbicula in the intake embayment and the clarifier influent, and to monitor and survey safety-related equipment to detect biofouling. Changes to this program will be submitted to and approved by the NRC (both the Region and NRR) prior to implementation.

5.5.13 Primary Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the 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-Test Program," dated September 1995.

The peak calculated containment internal pressure for the design basis loss of coolant accident, $P_a$, is 7.6 psig.

The maximum allowable primary containment leakage rate, $L_a$, at $P_a$, shall be 0.26% of primary containment air weight per day.

The Primary Containment leakage rate acceptance criterion is $\leq$ 1.0 $L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $\leq$ 0.60 $L_a$ for the Type B and Type C tests and $\leq$ 0.75 $L_a$ for Type A tests.

The provisions of SR 3.0.2 do not apply to test frequencies specified in the Primary Containment Leakage Rate Testing Program.

The provisions of SR 3.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.

BASES

BACKGROUND (continued)

2. SR 3.6.1.1.1 leakage rate requirements are in conformance with 10 CFR 50, Appendix J, Option B (Ref. 3), as modified by approved exemptions.

APPLICABLE SAFETY ANALYSES

The safety design basis for the primary containment is that it must withstand the pressures and temperatures of the limiting DBA without exceeding the design leakage rate.

The DBA that postulates the maximum release of radioactive material within primary containment is a LOCA. In the analysis of this accident, it is assumed that primary containment is OPERABLE such that release of fission products to the environment is controlled by the rate of primary containment leakage.

Analytical methods and assumptions involving the primary containment are presented in References 1 and 2. The safety analyses assume a nonmechanistic fission product release following a DBA, which forms the basis for determination of offsite doses. The fission product release is, in turn, based on an assumed leakage rate from the primary containment. OPERABILITY of the primary containment ensures that the leakage rate assumed in the safety analyses is not exceeded.

The maximum allowable leakage rate for the primary containment ($L_a$) is 0.26% by weight of the containment and drywell air per 24 hours at the design basis LOCA maximum peak containment pressure ($P_a$) of 7.6 psig (Ref. 4).

Primary containment satisfies Criterion 3 of the NRC Policy Statement.

LCO

Primary containment OPERABILITY is maintained by limiting overall leakage to $\leq 1.0\ L_a$. During the first startup following testing in accordance with the Primary Containment Leakage Rate Testing Program (Ref. 5), the leakage rate acceptance criteria are $\leq 0.60\ L_a$ for the Type B and Type C tests and $\leq 0.75\ L_a$ for Type A tests. ~~, except prior to the first startup after performing a required 10 CFR 50, Appendix J, leakage test. At this time, the combined Type B and C leakage must be < 0.6 $L_a$, and the overall Type A leakage must be < 0.75 $L_a$.~~ Compliance with this LCO will ensure a primary containment configuration, including

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1.1 (continued)

test requirements of the Primary Containment Leakage Rate Testing Program (Ref. 5). ~~10 CFR 50, Appendix J (Ref. 3), as modified by approved exemptions.~~ Failure to meet air lock leakage testing (SR 3.6.1.2.1 and SR 3.6.1.2.4) resilient seal primary containment purge valve leakage testing (SR 3.6.1.3.5), secondary containment bypass leakage (SR 3.6.1.3.9), main steam positive leakage control system (SR 3.6.1.3.10), hydrostatically tested valve leakage (SR 3.6.1.3.11), or annulus bypass leakage (SR 3.6.1.3.12) does not necessarily result in a failure of this SR. The impact of the failure to meet these SRs must be evaluated against the Type A, B, and C acceptance criteria of the Primary Containment Leakage Rate Testing Program. The Primary Containment overall leakage rate acceptance criteria is $\leq 1.0\ L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60\ L_a$ on a Maximum Pathway Leakage Rate (MXPLR) for the Type B and Type C tests and $\leq 0.75\ L_a$ for Type A tests. The MXPLR for combined Type B and C leakage is the measured leakage through the worst of the two isolation valves, unless a penetration is isolated by use of one closed and deactivated automatic valve, closed manual valve, or blind flange. In this case, the MXPLR of the isolated penetration is assumed to be the measured leakage through the isolation device. ~~10 CFR 50, Appendix J, as modified by approved exemptions (Ref. 3). As left leakage prior to the first startup after performing a required 10 CFR 50, Appendix J, leakage test is required to be $< 0.6\ L_a$ for combined Type B and C leakage, and $< 0.75\ L_a$ for overall Type A leakage. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of $\leq 1.0\ L_a$.~~ At $\leq 1.0\ L_a$ the offsite dose consequences are bounded by the assumptions of the safety analysis. The Frequency is required by the Primary Containment Leakage Testing Program. ~~10 CFR 50, Appendix J, as modified by approved exemptions. Thus, SR 3.0.2 (which allows Frequency extensions) does not apply.~~

REFERENCES

1. USAR, Section 6.2.
2. USAR, Section 15.6.5.
3. 10 CFR 50, Appendix J, Option B.
4. USAR, Section 6.2.6.
5. Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.1.3.11

Surveillance of hydrostatically tested lines at $\geq$ 1.1 $P_a$, 8.36 psig provides assurance that the calculation assumptions of References 2 and 3 are met. **The acceptance criteria for the combined leakage of all hydrostatically tested lines is 1.0 gpm times the total number of hydrostatically tested PCIVs when tested at 1.1 $P_a$.** The combined leakage rates must be demonstrated at the frequency of the leakage test requirements of **the Primary Containment Leakage Rate Testing Program (Ref. 5).** ~~Reference 4, as modified by approved exemptions; thus, SR 3.0.2 (which allows Frequency extensions) does not apply.~~

A note is added to this SR which states that these valves are only required to meet the combined leakage rate in MODES 1, 2, and 3 since this is when the Reactor Coolant System is pressurized and primary containment is required. In some instances, the valves are required to be capable of automatically closing during MODES other than MODES 1, 2, and 3. However, specific leakage limits are not applicable in these other MODES or conditions.

SR 3.6.1.3.12

This SR ensures that the combined leakage rate of annulus bypass leakage paths is less than the specified leakage rate. This provides assurance that the assumptions in the radiological evaluations of Reference 4 are met. The leakage rate of each bypass leakage path is assumed to be the maximum pathway leakage (leakage through the worse of the two isolation valves) unless the penetration is isolated by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. In this case, the leakage rate of the isolated bypass leakage path is assumed to be the actual pathway leakage through the isolation device. If both isolation valves in the penetration are closed, the actual leakage rate is the lesser leakage rate of the two valves. This method of quantifying maximum pathway leakage is only to be used for this SR (i.e., Appendix J, **Option B** maximum pathway leakage limits are to be quantified in accordance with Appendix J, **Option B**). The Frequency is required by **the Primary Containment Leakage Rate Testing Program (Ref. 5).** ~~10 CFR 50, Appendix J (Ref. 4), as modified by approved exemptions; thus, SR 3.0.2 (which allows Frequency extensions) does not apply.~~