3.0 **SURVEILLANCE REQUIREMENTS**

3.5 Containment Tests (Continued)

A-10	C-7	E-4	F-11
A-11	C-8	E-5	G-1
B-1	C-9	E-6	G-2
B-2	C-10	E-7	G-3
B-4	C-11	E-8	G-4
B-5	D-1	E-9	H-1
B-6	D-2	E-10	H-2
B-7	D-4	E-11	H-3
B-8	D-5	F-1	H-4

(4) Containment Isolation Valves Leak Rate Tests (Type C Tests)

Perform required visual examinations and leakage rate testing in accordance with the Containment Leakage Rate Testing Program for the following penetrations:

M-2	M-31	M-52	IA-3092
M-7	M-38	M-53	IA-3093
M-8	M-39	M-57	IA-3094
M-11	M-40	M-58	
M-14	M-42	M-69	
M-15	M-43	M-73	
M-18	M-44	M-74	
M-19	M-45	M-79	
M-20	M-46	M-80	
M-22	M-47	M-87	
M-24	M-48	M-88	
M-25	M-50	M-HCV-383-3	
M-30	M-51	M-HCV-383-4	

Basis

The containment is designed for an accident pressure of 60 psig.[2] While the reactor is operating, the internal environment of the containment will be air at approximately atmospheric pressure and a maximum temperature of about 120°F. With these initial conditions the temperature of the steam-air mixture at the peak accident pressure of 60 psig is 288°F.

Prior to initial operation, the containment was strength-tested at 69 psig and then was leak tested. The design objective of the pre-operational leakage rate test has been established as 0.1% by weight for 24 hours at 60 psig. This leakage rate is consistent with the construction of the containment, which is equipped with independent leak-testable penetrations and contains channels over all inaccessible containment liner welds, which were independently leak-tested during construction.

Safety analyses have been performed on the basis of a leakage rate of 0.1% of the free volume per day of the first 24 hours following the maximum hypothetical accident. With this leakage rate, a reactor power level of 1500 MWt, and with minimum containment engineered safety systems for iodine removal in operation (one air cooling and filtering unit), the public exposure would be well below 10 CFR Part 100 values in the event of the maximum hypothetical accident.[3] The performance of an integrated leakage rate test and performance of local leak rate testing of individual penetrations at periodic intervals during plant life provides a current assessment of potential leakage from the containment.

The reduced pressure (5 psig) test on the PAL is a conservative method of testing and provides adequate indication of any potential containment leakage path. The test is conducted by pressurizing between two resilient seals on each door. The test pressure tends to unseat the resilient seals which is opposite to the accident pressure that tends to seat the resilient seals. A periodic test ensures the overall PAL integrity at 60 psig.

The integrated leakage rate test (Type A test) can only be performed during refueling shutdowns.

3.0 SURVEILLANCE REQUIREMENTS

3.5 Containment Tests (continued)

The frequency of periodic integrated leakage rate tests is based on several major considerations: (1) There is a low probability of leaks in the liner because of the test of leak-tightness of the welds during erection and conformance of the complete containment to a low leak rate at 60 psig during pre-operational testing, which is consistent with 0.1% leakage at design basis accident conditions and absence of any significant stresses in the liner during reactor operation. (2) Periodic testing is conducted at full accident pressure, on those portions of the containment envelope that are most likely to develop leaks during reactor operation (penetrations and isolation valves). A low value (0.60 L_a) of total leakage is specified as acceptable from penetrations and isolation valves. (3) The tendon stress surveillance program provides assurance that an important part of the structural integrity of the containment is maintained. (4) A review of leakage rates obtained during past containment integrated leakage rate testing is conducted to set appropriate frequency of performance not to exceed once every 10 years. (5) Visual inspection of the containment structure is conducted every other refueling and prior to each Integrated Leakage Rate Test.

As left leakage prior to the first startup after performing a required 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.

Integrity tests of the purge isolation valves are established to identify excessive degradation of the resilient seats of these valves. Simultaneous testing of redundant purge valves from a leak test connection accessible from outside containment provides adequate testing. The testing method is identical to the Type C purge isolation valve test performed in accordance with 10 CFR Part 50, Appendix J. For leakages found to be greater than 18,000 SCCM, repairs shall be initiated to ensure these valves meet the acceptance criteria.

References

(1) USAR, Section 5.9

(2) USAR, Section 5.1.1

(3) USAR, Section 14.15

(Next page is 3-54)

5.0 ADMINISTRATIVE CONTROLS

5.7 Safety Limit Violation

5.7.1 The following actions shall be taken in the event a Safety Limit is violated:

a. The unit shall be placed in at least HOT SHUTDOWN within 1 hour.

b. The Safety Limit Violations shall be reported to the corporate officer responsible for overall plant nuclear safety and the Chairperson of the Safety Audit and Review Committee (SARC) within 24 hours.

c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the Plant Review Committee. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.

d. The Safety Limit Violation Report shall be submitted to the Chairperson of the Safety Audit and Review Committee and the corporate officer responsible for overall plant nuclear safety within 14 days of the violation.

5.8 Procedures

5.8.1 Written procedures and administrative policies shall be established, implemented and maintained covering the following activities:

a. The applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, 1978;

b. The emergency operating procedures required to implement the requirements of NUREG-0737 and to NUREG-0737, Supplement 1, as stated in Generic Letter 82-33;

c. Fire Protection Program implementation; and

d. All programs specified in Specification 5.11 through 5.21.

5.8.2 Temporary changes to procedures of 5.8.1 above may be made provided:

a. The intent of the original procedure is not altered.

b. The change is approved by two members of the plant supervisory staff, at least one of whom holds a Senior Reactor Operator's License.

b. Annual Occupational Exposure Report. An annual occupational exposure report shall be submitted on or before April 30 of each year. The report shall consist of a tabulation on an annual basis of the number of station,utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions,[3/] e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling outages. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

c. Monthly Operating Report. Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the U.S. Nuclear Regulatory Commission, Document Control Desk, with a copy to the appropriate Regional Office, no later than the fifteenth of each month following the calendar month covered by the report. This monthly report shall also include a statement regarding any challenges or failures to the pressurizer power operated relief valves or safety valves occurring during the subject month.

5.9.2 Reportable Event

A Licensee Event Report (LER) shall be submitted to the U.S. Nuclear Regulatory Commission for any event meeting the requirements of 10 CFR Part 50.73.

5.9.3 Special Reports

Special reports shall be submitted to the appropriate NRC Regional Office within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification where appropriate:

a. In-service inspection report, reference 3.3.
b. Tendon surveillance, reference 5.21.
c. Containment structural tests, reference 3.5.
d. DELETED
e. DELETED
f. DELETED
g. Materials radiation surveillance specimens reports, reference 3.3.
h. DELETED
i. Post-accident monitoring instrumentation, reference 2.21
j. Electrical systems, reference 2.7(2).

3/This tabulation supplements the requirements of § 20.2206 of 10 CFR Part 20.

5.20 Technical Specifications (TS) Bases Control Program (Continued)

1. A change in the TS incorporated in the license or

2. A change to the USAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.

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

d. Proposed changes that meet the criteria of 5.20.b 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).

5.21 Containment Tendon Testing Program

This program provides controls for monitoring any tendon degradation in prestressed concrete containments, including effectiveness of its corrosion protection medium, to ensure containment structural integrity. The program shall include baseline measurements prior to initial operations. The Containment Tendon Testing Program, inspection frequencies, and acceptance criteria shall be in accordance with Regulatory Guide 1.35, Revision 3, 1989.

The provisions of TS 3.0.1 and TS 3.0.5 are applicable to the Containment Tendon Testing Program inspection frequencies.

If the acceptance criteria are not met, an immediate investigation shall be made to determine the cause(s) and extent of the non-conformance to the criteria, and the results shall be reported to the Commission within 90 days via a special report in accordance with Technical Specification 5.9.3.