

Enclosure II

PROPOSED TECHNICAL SPECIFICATION CHANGE

NPF-10/15-351

FOR

SAN ONOFRE NUCLEAR GENERATING STATION UNITS 2 AND 3

9104100008 910408
PDR ADOCK 05000361
P PDR

DESCRIPTION AND SAFETY ANALYSES
OF PROPOSED CHANGE NPF-10/15-351

This is a request to revise Technical Specification 3/4.6.1.2, "Containment Leakage," and its associated Bases, B 3/4.6.1.2, "Containment Leakage," of the San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 Technical Specifications.

Existing Specifications:

Unit 2: See Attachment "A"
Unit 3: See Attachment "B"

Proposed Specifications:

Unit 2: See Attachment "C"
Unit 3: See Attachment "D"

Description of Change:

SONGS Units 2 and 3 Technical Specification (TS) 3/4.6.1.2, "Containment Leakage," provides limitations on Containment leakage rates. These leakage rates are periodically verified in part by Surveillance Requirement 4.6.1.2.a. The surveillance requires that three Containment overall integrated leakage rate tests (Type A tests) be performed during each 10-year service period, with the third test of each set, conducted during the shutdown for the 10-year plant Inservice Inspection. This surveillance sets forth the requirements of 10 CFR 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors." The proposed change would revise the requirement to perform the third Type A test during the shutdown for the 10-year plant inservice inspection. This would permit certain flexibility in the scheduling of the Type A test and the 10-year Inservice Inspection while still meeting the requirement to perform three approximately equally spaced Type A tests during the 10-year service period.

The limitations on Containment leakage rates provide assurance that the total Containment leakage volume will not exceed the value assumed in the plant safety analyses at the peak accident pressure, P_a . In addition to the leakage rates established by TS 3/4.6.1.2, required actions are prescribed should the leakage rates be exceeded. To ensure that the Containment leakage rates are within the limits specified by the Limiting Condition for Operation, Surveillance Requirements periodically demonstrate that the leakage rates are within their limits. The surveillance testing for measuring Containment leakage rates are consistent with the requirements of 10 CFR 50, Appendix J.

The proposed change will revise Surveillance Requirement 4.6.1.2.a of TS 3/4.6.1.2, and the associated Bases, B 3/4.6.1.2, "Containment Leakage." The proposed change would revise the requirement to perform the third Containment integrated leakage rate test (ILRT) of each 10-year service period in conjunction with the outage for the 10-year plant Inservice Inspection (ISI). The proposed change would allow the tests to be performed during separate outages thus permitting certain scheduling flexibility.

Appendix J requires a set of three Type A Containment overall ILRTs be performed at approximately equal intervals during each 10-year service period. It further requires that the third test of each set be conducted when the plant is shutdown for the 10-year plant Inservice Inspection. ASME Boiler & Pressure Vessel Code for mechanical systems and components establishes the 10-year inservice inspection period. The purpose of the inspection program is to ensure that structural integrity of Class 1, 2, and 3 components are maintained in accordance with the requirements of ASME Code Section XI. The 10-year Reactor Vessel ISI is a part of the entire program.

The Type A test in part satisfies the intent of the Appendix J test. The purpose of the Appendix J tests are to assure that:

(a) leakage through the primary reactor containment and systems and components penetrating primary containment shall not exceed allowable leakage rate values as specified in the technical specifications or associated bases and (b) periodic surveillance of reactor containment penetrations and isolation valves is performed so that proper maintenance and repairs are made during the service life of the containment, and systems and components penetrating primary containment.

Surveillance Requirement (SR) 4.6.1.2.a is based on the requirements of 10 CFR 50, Appendix J. SR 4.6.1.2.a requires that the Containment leakage rate be demonstrated to be within its limit in accordance with the specified test schedules. Specifically, three Type A tests are to be conducted at 40 ± 10 month intervals during shutdown during each 10-year service period. As required by 10 CFR 50 Appendix J, Part III.D.1(a), the third test of each set, is conducted during the plant shutdown for the 10-year plant Inservice Inspection. This provides assurance that the three Type A tests are not bunched together during the first 90 months of the 10-year service period.

The third Type A test and the 10-year ISI are currently scheduled for separate refueling outages. The 10-year ISI has been spread over each refueling outage. The remainder is to be performed during the Cycle 7 Refueling Outage. This will include the inspection for the Reactor Vessel. The 10-year ISI must be completed by August 18, 1993. The schedule for the ISI has been previously provided to the NRC in the ISI report.

To perform the 10-year Reactor Vessel ISI, the following prerequisites must be met:

1. All fuel must be removed from the Reactor Vessel, and

2. All Reactor Vessel Internals (e.g. Upper Guide Structure and Core Barrel) must be removed and placed in their stored locations in the Refueling Cavity. This would allow for ready access to the Reactor Vessel Shell Welds, Outlet Nozzle (Cold Leg) Welds, and Bottom Head Welds, and to provide for access to conduct visual examinations of the Vessel ID and Vessel Internal Components.

A complete offload of the Reactor Core will be performed in the upcoming Unit 2 Cycle 6 Refueling Outage to allow work activities in several plant systems. However, removal of the Core Barrel, which is a major evolution, is not planned. Approximately 12 to 15 days of critical path time would be needed to perform the Reactor Vessel ISI, including the remote visual examinations of the Core Barrel, Vessel Internals, and the Vessel ID surface. This could only be accomplished at a considerable monetary expense and would impose a significant burden upon SCE resources to perform such an inspection during the upcoming refueling outage. This inspection is planned to be performed during the Cycle 7 Refueling Outage, which is planned to be a long outage and also marks the last refueling outage prior to the end of the Units' first 10-year service period.

The two programs, the Containment ILRT and the ISI, are unrelated to one another and could be performed irrespective of one another. The purpose of requiring the third Type A test during shutdown for the 10-year plant Inservice Inspection is to assure that the three Type A tests are not bunched together during the first 90 months of the 10-year operation cycle. However, linking the Containment ILRT with the unrelated ISI at 10 years is unrelated to ensuring the Containment leakage rates are within their limits. Compliance with 10 CFR 50, Appendix J, Section III.D.1(a), to perform a Type A test and the 10-year ISI during the same outage, does not appear to serve the underlying purpose of the rule. Conducting the third Type A test during the same outage as the 10-year plant shutdown for the ISI does not enhance the purpose, or provide further assurance of Containment integrity above that which has already been demonstrated. The proposed change would permit the two tests to be performed during separate outages. The Type A tests would, however, continue to be performed at approximately equal intervals during each 10-year service period which is in accordance with the requirements of 10 CFR 50, Appendix J.

Safety Analysis

The proposed change described above shall be deemed to involve a significant hazards consideration if there is a positive finding in any one of the following areas:

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of any accident previously evaluated?

Response: No

The proposed change would revise the requirement of TS 3/4.6.1.2 to perform the third Containment ILRT of each 10-year service period concurrent with the third ISI of each 10-year service period. This would allow the third set of each test to be conducted during separate outages. The requirement to perform the two tests during the same outage stems from 10 CFR 50, Appendix J. The apparent basis for the coupling of the two types of tests, is to assure that the three Type A tests are not grouped together during the first 90 months of each 10-year operation cycle.

The proposed change would allow the 10-year Containment ILRT to be performed independent of the 10-year ISI. The manner in which the tests are performed, would remain unchanged. The acceptance criteria for the tests would also remain unchanged. Operation of the facility in accordance with the proposed change remains bounded by existing plant safety analyses. Furthermore, the proposed change would only affect the scheduling of one of the three Type A tests during each 10-year service period. The scheduling and performance of the remaining Type A tests would not be affected. Therefore, the proposed change will not involve a significant increase in the probability or consequences of any accident previously evaluated.

2. Will operation of the facility in accordance with this proposed change create the possibility of a new or different kind of accident from any previously evaluated?

Response: No

The Containment will continue to be demonstrated to maintain its design function; to limit leakage rates to within the values specified in TS 3/4.6.1.2. In addition, the tests required by Surveillance Requirement 4.6.1.2.a will not be changed as a result of the proposed change. The proposed change will only allow the third 10-year Containment ILRT to be performed during a separate outage from the 10-year ISI. The Containment ILRTs will continue to be conducted at approximately equal intervals during each 10-year service period. The separation of the two unrelated tests does not introduce a new or different kind of accident because the surveillance test frequency, acceptance criteria, and test and inspection methods are unchanged. Therefore the proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

Response: No

The proposed change would revise the surveillance to perform the third Containment ILRT during the shutdown for the 10-year plant ISI. The proposed change would allow the third Containment ILRT

during each 10-year service period to be conducted during a separate outage from the ISI. The actual test to demonstrate Containment leakage rates are within their limits, would not be affected and will be conducted in the same manner. The Appendix J requirements will continue to be met with an exception to the schedular requirements of Section III.D.1(a). Therefore, the proposed change will not involve a significant reduction in a margin of safety.

Safety and Significant Hazards Determination

Based on the above Safety Analysis, it is concluded that: (1) the proposed change does not constitute a significant hazards consideration as defined by 10 CFR 50.92; and (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change; and (3) this action will not result in a condition which significantly alters the impact of the station on the environment as described in the NRC Final Environmental Statement.

NPF-10/15-351

ATTACHMENT "A"
(Existing Specifications)
Unit 2

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

- 3.6.1.2 Containment leakage rates shall be limited to:
- a. An overall integrated leakage rate of:
 1. Less than or equal to L_a , 0.10 percent by weight of the containment air per 24 hours at P_a , 55.7 psig, or
 2. Less than or equal to L_i , 0.05 percent by weight of the containment air per 24 hours at a reduced pressure of P_i , 27.9 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 .

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

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

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4 - 1972:

- a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10 month intervals during shutdown at either P_a (55.7 psig) or at P_i (27.9 psig) during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection. Prior to the Type A tests a visual inspection shall be conducted in accordance with Specification 4.6.1.6 to demonstrate the containment structural integrity.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. If any periodic Type A test fails to meet either $.75 L_a$ or $.75 L_i$, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet either $.75 L_a$ or $.75 L_i$, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either $.75 L_a$ or $.75 L_i$ at which time the above test schedule may be resumed.
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
 - 1. For the superimposed leak test, verifies that the difference between the supplemental and Type A test data is within $0.25 L_a$ or $0.25 L_i$, has a sufficient duration to establish accurately the change in leakage rate between the Type A test and the supplemental test, and requires the quantity of gas bled from the containment during the supplemental test to be equal to at least 25 percent of the total measured leakage at P_a (55.7) psig or P_i (27.9) psig.
 - 2. For the mass step change test, verifies that the metered mass of air bled from or injected into the containment and the change of mass in containment air as measured by the Type A test instrumentation are within 25 percent, does not remove or inject more than 25 percent of the daily allowable leakage in any one hour period, and involves a total metered mass change between 75 and 125 percent of the daily allowable leakage.
- d. Type B and C tests shall be conducted with gas at P_a (55.7 psig) at intervals no greater than 24 months except for test involving:
 - 1. Air locks, and
 - 2. Valves pressurized with fluid from a seal system.
 - 3. Purge supply and exhaust isolation valves with resilient material seals.
- e. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.7.3.
- f. Air locks shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.3.
- g. Leakage from isolation valves that are sealed with fluid from a seal system may be excluded, subject to the provisions of Appendix J, Section III.C.3, when determining the combined leakage rate provided the seal system and valves are pressurized to at least $1.10 P_a$ (61.3 psig) and the seal system capacity is adequate to maintain system pressure for at least 30 days.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- h. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated leakage measurement system.
- i. The provisions of Specification 4.0.2 are not applicable.

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 accident analyses. This restriction, in conjunction with the leakage rate limitation, will limit the site boundary radiation doses to within the limits of 10 CFR 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 $0.75 L_a$ or less than or equal to $0.75 L_i$, as applicable during performance of the periodic tests 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 50.

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.

NPF-10/15-351

ATTACHMENT "B"
(Existing Specifications)
Unit 3

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
 1. Less than or equal to L_a , 0.10 percent by weight of the containment air per 24 hours at P_a , 55.7 psig, or
 2. Less than or equal to L_i , 0.05 percent by weight of the containment air per 24 hours at a reduced pressure of P_i , 27.9 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 .

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With either (a) the measured overall integrated containment leakage rate exceed $0.75 L_a$ or $0.75 L_i$, as applicable, or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding $0.60 L_a$, restore the overall integrated leakage rate to less than or equal to $0.75 L_a$ or less than or equal to $0.75 L_i$, as applicable, and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than $0.60 L_a$ prior to increasing the Reactor Coolant System temperature above 200 F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4 - 1972:

- a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10 month intervals during shutdown at either P_a (55.7 psig) or at P_i (27.9 psig) during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection. Prior to the Type A tests a visual inspection shall be conducted in accordance with Specification 4.6.1.6 to demonstrate the containment structural integrity.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. If any periodic Type A test fails to meet either $.75 L_a$ or $.75 L_i$, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet either $.75 L_a$ or $.75 L_i$, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either $.75 L_a$ or $.75 L_i$ at which time the above test schedule may be resumed.
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
 - 1. For the superimposed leak test, verifies that the difference between the supplemental and Type A test data is within $0.25 L_a$ or $0.25 L_i$, has a sufficient duration to establish accurately the change in leakage rate between the Type A test and the supplemental test, and requires the quantity of gas bled from the containment during the supplemental test to be equal to at least 25 percent of the total measured leakage at P_a (55.7) psig or P_i (27.9) psig.
 - 2. For the mass step change test, verifies that the metered mass of air bled from or injected into the containment and the change of mass in containment air as measured by the Type A test instrumentation are within 25 percent, does not remove or inject more than 25 percent of the daily allowable leakage in any one hour period, and involves a total metered mass change between 75 and 125 percent of the daily allowable leakage.
- d. Type B and C tests shall be conducted with gas at P_a (55.7 psig) at intervals no greater than 24 months except for test involving:
 - 1. Air locks, and
 - 2. Valves pressurized with fluid from a seal system.
 - 3. Purge supply and exhaust isolation valves with resilient material seals.
- e. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.7.3.
- f. Air locks shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.3.
- g. Leakage from isolation valves that are sealed with fluid from a seal system may be excluded, subject to the provisions of Appendix J, Section III.C.3, when determining the combined leakage rate provided the seal system and valves are pressurized to at least $1.10 P_a$ (61.3 psig) and the seal system capacity is adequate to maintain system pressure for at least 30 days.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- h. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated leakage measurement system.
- i. The provisions of Specification 4.0.2 are not applicable.

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 accident analyses. This restriction, in conjunction with the leakage rate limitation, will limit the site boundary radiation doses to within the limits of 10 CFR 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 $0.75 L_a$ or less than or equal to $0.75 L_i$, as applicable during performance of the periodic tests 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 50.

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.

NPF-10/15-351

ATTACHMENT "C"
(Proposed Specifications)
Unit 2

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
 1. Less than or equal to L_a , 0.10 percent by weight of the containment air per 24 hours at P_a , 55.7 psig, or
 2. Less than or equal to L_i , 0.05 percent by weight of the containment air per 24 hours at a reduced pressure of P_i , 27.9 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 .

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

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

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4 - 1972:

- a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10 month intervals during shutdown at either P_a (55.7 psig) or at P_i (27.9 psig) during each 10-year service period. ~~The third test of each set shall be conducted during the shutdown for the 10 year plant inservice inspection.~~ Prior to the Type A tests a visual inspection shall be conducted in accordance with Specification 4.6.1.6 to demonstrate the containment structural integrity.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. If any periodic Type A test fails to meet either $.75 L_a$ or $.75 L_i$, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet either $.75 L_a$ or $.75 L_i$, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either $.75 L_a$ or $.75 L_i$ at which time the above test schedule may be resumed.
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
 - 1. For the superimposed leak test, verifies that the difference between the supplemental and Type A test data is within $0.25 L_a$ or $0.25 L_i$, has a sufficient duration to establish accurately the change in leakage rate between the Type A test and the supplemental test, and requires the quantity of gas bled from the containment during the supplemental test to be equal to at least 25 percent of the total measured leakage at P_a (55.7) psig or P_i (27.9) psig.
 - 2. For the mass step change test, verifies that the metered mass of air bled from or injected into the containment and the change of mass in containment air as measured by the Type A test instrumentation are within 25 percent, does not remove or inject more than 25 percent of the daily allowable leakage in any one hour period, and involves a total metered mass change between 75 and 125 percent of the daily allowable leakage.
- d. Type B and C tests shall be conducted with gas at P_a (55.7 psig) at intervals no greater than 24 months except for test involving:
 - 1. Air locks, and
 - 2. Valves pressurized with fluid from a seal system.
 - 3. Purge supply and exhaust isolation valves with resilient material seals.
- e. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.7.3.
- f. Air locks shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.3.
- g. Leakage from isolation valves that are sealed with fluid from a seal system may be excluded, subject to the provisions of Appendix J, Section III.C.3, when determining the combined leakage rate provided the seal system and valves are pressurized to at least $1.10 P_a$ (61.3 psig) and the seal system capacity is adequate to maintain system pressure for at least 30 days.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- h. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated leakage measurement system.
- i. The provisions of Specification 4.0.2 are not applicable.

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 accident analyses. This restriction, in conjunction with the leakage rate limitation, will limit the site boundary radiation doses to within the limits of 10 CFR 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 $0.75 L_a$ or less than or equal to $0.75 L_i$, as applicable during performance of the periodic tests 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 50.

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 following exception, however, applies: The third Type A test of each 10-year inservice interval, need not be conducted when the unit is shut down for the 10-year plant inservice inspection

NPF-10/15-351

ATTACHMENT "D"
(Proposed Specifications)
Unit 3

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
 1. Less than or equal to L_a , 0.10 percent by weight of the containment air per 24 hours at P_a , 55.7 psig, or
 2. Less than or equal to L_i , 0.05 percent by weight of the containment air per 24 hours at a reduced pressure of P_i , 27.9 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 .

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With either (a) the measured overall integrated containment leakage rate exceed $0.75 L_a$ or $0.75 L_i$, as applicable, or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding $0.60 L_a$, restore the overall integrated leakage rate to less than or equal to $0.75 L_a$ or less than or equal to $0.75 L_i$, as applicable, and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than $0.60 L_a$ prior to increasing the Reactor Coolant System temperature above 200 F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4 - 1972:

- a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 + 10 month intervals during shutdown at either P_a (55.7 psig) or at P_i (27.9 psig) during each 10-year service period. ~~The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection.~~ Prior to the Type A tests a visual inspection shall be conducted in accordance with Specification 4.6.1.6 to demonstrate the containment structural integrity.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. If any periodic Type A test fails to meet either $.75 L_a$ or $.75 L_i$, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet either $.75 L_a$ or $.75 L_i$, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either $.75 L_a$ or $.75 L_i$ at which time the above test schedule may be resumed.
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
 - 1. For the superimposed leak test, verifies that the difference between the supplemental and Type A test data is within $0.25 L_a$ or $0.25 L_i$, has a sufficient duration to establish accurately the change in leakage rate between the Type A test and the supplemental test, and requires the quantity of gas bled from the containment during the supplemental test to be equal to at least 25 percent of the total measured leakage at P_a (55.7) psig or P_i (27.9) psig.
 - 2. For the mass step change test, verifies that the metered mass of air bled from or injected into the containment and the change of mass in containment air as measured by the Type A test instrumentation are within 25 percent, does not remove or inject more than 25 percent of the daily allowable leakage in any one hour period, and involves a total metered mass change between 75 and 125 percent of the daily allowable leakage.
- d. Type B and C tests shall be conducted with gas at P_a (55.7 psig) at intervals no greater than 24 months except for test involving:
 - 1. Air locks, and
 - 2. Valves pressurized with fluid from a seal system.
 - 3. Purge supply and exhaust isolation valves with resilient material seals.
- e. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.7.3.
- f. Air locks shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.3.
- g. Leakage from isolation valves that are sealed with fluid from a seal system may be excluded, subject to the provisions of Appendix J, Section III.C.3, when determining the combined leakage rate provided the seal system and valves are pressurized to at least $1.10 P_a$ (61.3 psig) and the seal system capacity is adequate to maintain system pressure for at least 30 days.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- h. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated leakage measurement system.
- i. The provisions of Specification 4.0.2 are not applicable.

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 accident analyses. This restriction, in conjunction with the leakage rate limitation, will limit the site boundary radiation doses to within the limits of 10 CFR 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 $0.75 L_a$ or less than or equal to $0.75 L_i$, as applicable during performance of the periodic tests 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 50.

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 following exception, however, applies: The third Type A test of each 10-year inservice interval, need not be conducted when the unit is shutdown for the 10-year plant inservice inspection.