Docket No. 50-423
B16559

Attachment 2

Millstone Nuclear Power Station Unit No. 3
Proposed Revision to Technical Specification
Containment Systems
(PTSCR 3-15-97)
Marked Up Pages

June 1997

MARKUP OF PROPOSED REVISION

Refer to the attached markup of the proposed revision to the Technical Specifications. The attached markup reflects the currently issued version of the Technical Specifications listed below. Pending Technical Specification revisions or Technical Specification revisions issued subsequent to this submittal are not reflected in the enclosed markup.

Proposed revisions to Technical Specification letters B15028, dated December 14, 1994, and B15193, dated April 28, 1995, are not reflected in the enclosed markup.

The following Technical Specifications changes are included in the attached markup:

- The surveillance is changed to identify that valves can be opened under administrative control or procedure control and the list of valves is modified.

  4.6.1.1

- The surveillance wording is changed from "not less than P_a, 53.27 psia (38.57 psig)" to "a pressure greater than or equal to P_a, 38.57 psig".

  4.6.1.1.c 4.6.1.2.a 4.6.1.3.b

- The wording is changed from "P_a, 53.27 psia (38.57 psig)" to "a pressure greater than or equal to P_a, 38.57 psig".

  4.6.1.2.d

- The wording is changed from "P_a, 53.27 psia (38.57 psig)" to "greater than or equal to P_a, 38.57 psig".

  4.6.1.2.e

- The wording is changed from "P_a, 53.27 psia (38.57 psig)" to "P_a, 38.57 psig".

  3.6.1.2.a 3.6.1.3.b 4.6.1.3.a

- The wording is changed to provide clarity.

  B3/4.6.1.1 B3/4.6.1.2 B3/4.6.1.3

- The footnote is deleted.

  4.6.1.2.a

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 or operator action during periods when containment isolation valves are opened under administrative control,** and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions. (Or procedure control ***)

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~~ greater than or equal to P_a, ~~53.27 psig~~ (38.57 psig), and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2d. for all other Type B and C penetrations, the combined leakage rate is less than 0.60 L_a.

* 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.

** The following manual valves may be opened on an intermittent basis under administrative control, ~~3FPW-V661, 3FPW-666~~, 3SSPxV13, 3SSPxV14, 3HCSxV2, 3HCSxV3, 3HCSxV9, 3HCSxV10, 3HCSxV6, 3HCSxV13, ~~3SAS-V50~~, 3CHSxV371, ~~3CCP-V886, 3CCP-V887, 3CVS-V13~~, 3MSS*V885, 3MSS*V886, 3MSS*V887

*** The following valves are opened in Mode 4 under procedure controls. 3RHS*MV8701A, 3RHS*MV8701B, 3RHS*MV8702B, 3RHS*MV8702A

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

a. An overall integrated leakage rate of less than or equal to L_a, 0.3% by weight of the containment air per 24 hours at P_a, ~~53.27 psia~~ (38.57 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; and

c. A combined leakage rate of less than or equal to 0.042 L_a for all penetrations that are Secondary Containment bypass leakage paths when pressurized to P_a.

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

ACTION:

With 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 Type B and C tests exceeding 0.60 L_a, or the combined bypass leakage rate exceeding 0.042 L_a, restore the overall integrated leakage rate to less than 0.75 L_a, the combined leakage rate for all penetrations subject to Type B and C tests to less than 0.60 L_a, and the combined bypass leakage rate to less than 0.042 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 Part 50 using methods and provisions of ANSI N45.4-1972 (Total Time Method) and/or ANSI/ANS 56.8-1981 (Mass Point Method):

a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at approximately equal intervals during shutdown at a pressure ~~not less than~~ greater than or equal to P_a, ~~53.27 psia~~ (38.57 psig), during each 10-year service period.*

b. If any periodic Type A test fails to meet 0.75 L_a, 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 0.75 L_a, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet 0.75 L_a at which time the above test schedule may be resumed;

*The third Type A test will be conducted during the sixth refueling outage. As a result, the duration of the first 10-year service period will be extended to the end of the sixth refueling outage.

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c. The accuracy of each Type A test shall be verified by a supplemental test which:

1) Confirms the accuracy of the test by verifying that the supplemental test results, L_c, minus the sum of the Type A and the superimposed leak, L_o, is equal to or less than 0.25 L_a;

2) Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test; and

3) Requires that the rate at which gas is injected into the containment or bled from the containment during the supplemental test is between 0.75 L_a and 1.25 L_a.

d. Type B and C tests shall be conducted with gas at a pressure greater than or equal to P_a, ~~53.27 psia (38.57 psig)~~, at intervals no greater than 24 months except for tests involving:

1) Air locks

e. The combined bypass leakage rate shall be determined to be less than or equal to 0.042 L_a by applicable Type B and C tests at least once per 24 months except for penetrations which are not individually testable; penetrations not individually testable shall be determined to have no detectable leakage when tested with soap bubbles while the containment is pressurized to P_a, ~~53.27 psig (38.57 psig)~~, greater than or equal to during each Type A test;

f. Air locks shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.3;

g. Purge supply and exhaust isolation valves shall be demonstrated OPERABLE by the requirements of Specifications 4.6.3.2.c and 4.9.9.

h. The provisions of Specification 4.0.2 are not applicable.

Corrected: July 12, 1995
Original: January 25, 1991

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 The 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 L_a at P_a, ~~53.27 psia~~ (38.57 psig).

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. Entry into an OPERATIONAL MODE is permitted while subject to these ACTION requirements.

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.

*Except during entry to repair an inoperable inner door, for a cumulative time not to exceed 1 hour per year.

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

a. 1) 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 no detectable seal leakage by pressure decay when the volume between the door seals is pressurized to greater than or equal to P_a, ~~53.27 psia~~ (38.57 psig)*, for at least 15 minutes;

or

2) 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 that the seal leakage is less than 0.01 L_a as determined by precision flow measurements when measured for at least 30 seconds with the volume between the seals at a constant pressure of greater than or equal to P_a, ~~53.27 psia~~ (38.57 psig)*;

or

3) 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 completing an overall air lock leakage test per 4.6.1.3.b.

b. By conducting overall air lock leakage tests* at ~~not less than~~ a pressure greater than or equal to P_a, ~~53.27 psia~~ (38.57 psig)*, 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.**

c. At least once per 6 months by verifying that only one door in each air lock can be opened at a time.

*The provisions of Specification 4.0.2 are not applicable.
**This represents an exemption to Appendix J, paragraph III.D.2.(b)(ii), of 10 CFR Part 50.

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 of 10 CFR Part 100 during accident conditions and the control room operators dose to within the guidelines of GDC 19.

INSERT C

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, 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.

INSERT A

The surveillance testing for measuring leakage rates are consistent with the requirements of Appendix J of 10 CFR Part 50. A partial exemption has been granted from the requirements of 10CFR50, Appendix J, Section III.D.1(a). The exemption removes the requirement that the third Type A test for each 10-year period be conducted when the plant is shut down for the 10-year plant inservice inspection (Reference License Amendment No. 111).

The enclosure building bypass leakage paths are listed in Operating Procedure 3273, "Technical Requirements - Supplementary Technical Specifications." The addition or deletion of the enclosure building bypass leakage paths shall be made in accordance with Section 50.59 of 10CFR50 and approved by the Plant Operation Review Committee.

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 B

3/4.6.1.4 and 3/4.6.1.5 AIR PRESSURE and AIR TEMPERATURE

The limitations on containment pressure and average air temperature ensure that: (1) the containment structure is prevented from exceeding its design negative pressure of 8 psia, and (2) the containment peak pressure does

Bases Document Change
3/4.6.1.2 CONTAINMENT LEAKAGE

INSERT A

The Limiting Condition for Operation defines the limitations on containment leakage rates for compliance with 10CFR50, Appendix J. The leakage rates are verified by surveillance testing in accordance with the requirements of Appendix J. Although the LCO specifies the leakage rates at accident pressure, P_a, it is not feasible to perform a test at such an exact value for pressure. Consequently, the surveillance testing is performed at a pressure greater than or equal to P_a to account for test instrument uncertainties and stabilization changes. This conservative test pressure ensures that the measured leakage rates are representative of those which would occur at accident pressure while meeting the intent of the LCO. This test methodology is consistent with the guidance provided in ANSI/ANS 56.8-1981 for meeting the requirements set forth in Appendix J.

3/4.6.1.3 CONTAINMENT AIR LOCKS

INSERT B

While the leakage rate limitation is specified at accident pressure, P_a, the actual surveillance testing is performed by applying a pressure greater than or equal to P_a. This higher pressure accounts for test instrument uncertainties and test volume stabilization changes which occurs under actual test conditions. This method of performing surveillance testing is consistent with the guidance provided in ANSI 56.8-1981 and ensures that the leakage rate measured meets the intent of the LCO and Appendix J.

Bases Document Change

3/4.6.1.1 CONTAINMENT INTEGRITY

INSERT C

Add: The opening of containment isolation valves on an intermittent basis under administrative controls includes stationing an operator, who is in constant communication with the control room, at the valve controls and instructing this operator to close these valves in an accident situation.

The environmental conditions will not preclude access to close the containment isolation valves listed in the footnote and that valve closure will control the release of radioactivity outside the containment.

The Residual Heat Removal valves 3RHS*MV8701A/B and 3RHS*MV8702A/B are opened during normal cooldown and heatup in mode 4. These valves are remote manual valves controlled from the control room. Control of these valves is provided in the operations procedures.

Docket No. 50-423
B16559

Attachment 3

Millstone Nuclear Power Station Unit No. 3
Proposed Revision to Technical Specification
Containment Systems
(PTSCR 3-15-97)
Retyped Pages

June 1997

RETYPE OF PROPOSED REVISION

Refer to the attached retype of the proposed revision to the Technical Specifications. The attached retype reflects the currently issued version of the Technical Specifications. Pending Technical Specification revisions or Technical Specification revisions issued subsequent to this submittal are not reflected in the enclosed retype. The enclosed retype should be checked for continuity with Technical Specifications prior to issuance.

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 or operator action during periods when containment isolation valves are opened under administrative control,** or procedure control,*** and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions.

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 greater than or equal to P_a, 38.57 psig, and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2d. for all other Type B and C penetrations, the combined leakage rate is less than 0.60 L_a.

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* 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.

** The following valves may be opened on an intermittent basis under administrative control. 3SSP*V13, 3SSP*V14, 3HCS*V2, 3HCS*V3, 3HCS*V9, 3HCS*V10, 3HCS*V6, 3HCS*V13, 3CHS*V371, 3MSS*V885, 3MSS*V886, 3MSS*V887.

*** The following valves are opened in Mode 4 under procedure controls. 3RHS*MV8701A, 3RHS*MV8701B, 3RHS*8702B, 3RHS*MV8702A.

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

a. An overall integrated leakage rate of less than or equal to L_a, 0.3% by weight of the containment air per 24 hours at P_a, 38.57 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; and

c. A combined leakage rate of less than or equal to 0.042 L_a for all penetrations that are Secondary Containment bypass leakage paths when pressurized to P_a.

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

ACTION:

With 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 Type B and C tests exceeding 0.60 L_a, or the combined bypass leakage rate exceeding 0.042 L_a, restore the overall integrated leakage rate to less than 0.75 L_a, the combined leakage rate for all penetrations subject to Type B and C tests to less than 0.60 L_a, and the combined bypass leakage rate to less than 0.042 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 Part 50 using methods and provisions of ANSI N45.4-1972 (Total Time Method) and/or ANSI/ANS 56.8-1981 (Mass Point Method):

a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at approximately equal intervals during shutdown at a pressure greater than or equal to P_a, 38.57 psig, during each 10-year service period.

b. If any periodic Type A test fails to meet 0.75 L_a, 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 0.75 L_a, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet 0.75 L_a at which time the above test schedule may be resumed;

SURVEILLANCE REQUIREMENTS (Continued)

c. The accuracy of each Type A test shall be verified by a supplemental test which:

1) Confirms the accuracy of the test by verifying that the supplemental test results, L_c, minus the sum of the Type A and the superimposed leak, L_o, is equal to or less than 0.25 L_a;

2) Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test; and

3) Requires that the rate at which gas is injected into the containment or bled from the containment during the supplemental test is between 0.75 L_a and 1.25 L_a.

d. Type B and C tests shall be conducted with gas at a pressure greater than or equal to P_a, 38.57 psig, at intervals no greater than 24 months except for tests involving:

1) Air locks

e. The combined bypass leakage rate shall be determined to be less than or equal to 0.042 L_a by applicable Type B and C tests at least once per 24 months except for penetrations which are not individually testable; penetrations not individually testable shall be determined to have no detectable leakage when tested with soap bubbles while the containment is pressurized to greater than or equal to P_a, 38.57 psig, during each Type A test;

f. Air locks shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.3;

g. Purge supply and exhaust isolation valves shall be demonstrated OPERABLE by the requirements of Specifications 4.6.3.2.c and 4.9.9.

h. The provisions of Specification 4.0.2 are not applicable.

LIMITING CONDITION FOR OPERATION

3.6.1.3 The 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 L_a at P_a, 38.57 psig.

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. Entry into an OPERATIONAL MODE is permitted while subject to these ACTION requirements.

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.

*Except during entry to repair an inoperable inner door, for a cumulative time not to exceed 1 hour per year.

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

a. 1) 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 no detectable seal leakage by pressure decay when the volume between the door seals is pressurized to greater than or equal to P_a, 38.57 psig, for at least 15 minutes;

or

2) 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 that the seal leakage is less than 0.01 L_a as determined by precision flow measurements when measured for at least 30 seconds with the volume between the seals at a constant pressure of greater than or equal to P_a, 38.57 psig;

or

3) 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 completing an overall air lock leakage test per 4.6.1.3.b.

b. By conducting overall air lock leakage tests at a pressure greater than or equal to P_a, 38.57 psig, 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.**

c. At least once per 6 months by verifying that only one door in each air lock can be opened at a time.

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*The provisions of Specification 4.0.2 are not applicable.

**This represents an exemption to Appendix J, paragraph III.D.2.(b)(ii), of 10 CFR Part 50.

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 of 10 CFR Part 100 during accident conditions and the control room operators dose to within the guidelines of GDC 19.

The opening of containment isolation valves on an intermittent basis under administrative controls includes stationing an operator, who is constant communication with the control room, at the valve controls and instructing this operator to close these valves in an accident situation.

The environmental conditions will not preclude access to close the containment isolation valves listed in the footnote and that valve closure will control the release of radioactivity outside the containment.

The Residual Heat Removal valves 3RHS*MV8701A/B and 3RHS*MV8702A/B are opened during normal cooldown and heatup in Mode 4. These valves are remote manual valves controlled from the control room. Control of these valves is provided in the operations procedures.

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

The Limiting Condition for Operation defines the limitations on containment leakage rates for compliance with 10CFR50, Appendix J. The leakage rates are verified by surveillance testing in accordance with the requirements of Appendix J. Although the LCO specifies the leakage rates at accident pressure, P_a, it is not feasible to perform a test at such an exact value for pressure. Consequently, the surveillance testing is performed at a pressure greater than or equal to P_a to account for test instrument uncertainties and stabilization changes. This conservative test pressure ensures that the measured leakage rates are representative of those which would occur at accident pressure while meeting the intent of the LCO. This test methodology is consistent with the guidance provided in ANSI/ANS 56.8-1981 for meeting the requirements set forth in Appendix J.

The surveillance testing for measuring leakage rates are consistent with the requirements of Appendix J of 10 CFR Part 50. A partial exemption has been granted from the requirements of 10CFR50, Appendix J, Section III.D.1(a). The exemption removes the requirement that the third Type A test for each 10-year period be conducted when the plant is shut down for the 10-year plant inservice inspection (Reference License Amendment No. 111).

3/4.6.1.2 CONTAINMENT LEAKAGE (continued)

The enclosure building bypass leakage paths are listed in Operating Procedure 3273, "Technical Requirements - Supplementary Technical Specifications." The addition or deletion of the enclosure building bypass leakage paths shall be made in accordance with Section 50.59 of 10CFR50 and approved [by the Plant Operation Review Committee.

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. While the leakage rate limitation is specified at accident pressure, P_a, the actual surveillance testing is performed by applying a pressure greater than or equal to P_a. This higher pressure accounts for test instrument uncertainties and test volume stabilization changes which occurs under actual test conditions. This method of performing surveillance testing is consistent with the guidance provided in ANSI 56.8-1981 and ensures that the leakage rate measured meets the intent of the LCO and Appendix J.

3/4.6.1.4 and 3/4.6.1.5 AIR PRESSURE and AIR TEMPERATURE

The limitations on containment pressure and average air temperature ensure that: (1) the containment structure is prevented from exceeding its design negative pressure of 8 psia, and (2) the containment peak pressure does not exceed the design pressure of 60 psia during LOCA conditions. Measurements shall be made at all listed locations, whether by fixed or portable instruments, prior to determining the average air temperature. The limits on the pressure and average air temperature are consistent with the assumptions of the safety analysis. The minimum total containment pressure of 10.6 psia is determined by summing the minimum permissible air partial pressure of 8.9 psia and the maximum expected vapor pressure of 1.7 psia (occurring at the maximum permissible containment initial temperature of 120°F).

Docket No. 50-423
B16559

Attachment 4

Millstone Nuclear Power Station Unit No. 3
Proposed Revision to Technical Specification
Containment Systems
(PTSCR 3-15-97)
Background and Safety Assessment

June 1997

Background

Technical Specifications 4.6.1.1, 3/4.6.1.2 and 3/4.6.1.3 require the testing of the containment to verify that leakage limits at a specified test pressure are consistent with accident assumptions. The proposed changes will modify the list of valves that can be opened in modes 1 through 4, remove a footnote and reword the Technical Specifications and Bases to provide clarity and consistency.

Safety Assessment

The proposed revision to Technical Specification Surveillance 4.6.1.1.a include the adding "or procedure control***" , adding footnote "***" and modifying footnote "**".

The addition of "or procedure control***" and Footnote "***" is requested because Residual Heat Removal System (RHR) valves, 3RHS*MV8701A/B and 3RHS*MV8702A/B, are opened during cooldown and heatup in Mode 4. These valves are the RHR System A and System B valves that are open when the RHR System is in service. These valves are containment isolation valves that are remote manual valves controlled from the control room. The control of these valves is provided in operating procedures. The use of these valves is not consistent with the criteria of Footnote "**" to be opened on an intermittent basis and, therefore, the surveillance is being changed by adding "or procedure control***" and Footnote "***" for these valves. Allowing these containment isolation valves to be opened is consistent with Technical Specification 3.4.1.3, Reactor Coolant System - Hot Shutdown, which allows the RHR system to be used in Mode 4. These proposed changes that address the opening of the RHR system containment isolation valves, under procedure control in Mode 4, do not change the way the RHR system is operated or change the operators response to an accident in Mode 4. Therefore, the addition of "or procedure control***" and Footnote "***" does not affect the consequences of the previously evaluated accidents.

Footnote ** is being modified to delete the word "manual", to delete valves "3FPW-V661, 3FPW-V666, 3SAS-V875, 3SAS-V50, 3CCP-V886, 3CCP-V887, 3CVS-V13", to add valves "3MSS*V885, 3MSS*V886, 3MSS*V887", and to replace the "-" in the designation of the remaining valves with an "*".

- Valves 3FPW-V661, 3FPW-V666, 3SAS-V875, 3SAS-V50, 3CCP-V886 and 3CCP-V887 are local manual valves located inside the containment. Valve 3CVS-V13 is a local manual valve located outside the containment. The proposed change to delete these valves from the list is a result of NNECO's re-evaluation of the criteria for valves that can be open intermittently under administrative controls. Deleting these valves from the list of valves that are allowed to be opened under administrative control does not modify plant response to or mitigation strategy for any accident.

- The valves being added, 3MSS*V885, 3MSS*V886, and 3MSS*V887, are in the steam lines to the steam-driven auxiliary feedwater pump. These valves are opened to warm the steam lines prior to testing the steam-driven auxiliary feedwater pump. These valves were recently reclassified as containment isolation valves, which resulted in the need to add them to the list of valves allowed to be opened under administrative control. The administrative controls include the appropriate considerations that when required, containment integrity will be established consistent with the assumptions in the design basis analyses . Thus for LOCA, steam line break, and feed line break accidents inside containment, there is no effect on the consequences of the accident. Similarly, for an SGTR, Locked Rotor or Control Rod Ejection event, the administrative controls provides the assurance that these valves will be closed and allowing them to be opened will not adversely impact the consequences of these events. If failure to close one of these valves is postulated as a single failure for these events, the results would be bounded by the analyses described in the FSAR. For example, the Locked Rotor event assumes a stuck open steam generator power-operated pressure relief valve (PORV). The steam released by the assumed single failure of the PORV, for the twenty minutes until the valve is isolated, would exceed the expected releases as a result of failure to close valve 3MSS*V885, 3MSS*V886, or 3MSS*V887 which are in 1/4 inch lines. Additionally, the FSAR, Section 15.1.5, provides the assumptions on steam releases for the consequences of the steam line break outside containment accident. The steam generator with a break in a steam line is assumed to be open to the atmosphere for the duration of the event. If failure to close one of these 1/4 inch line valves is postulated as a single failure for this event, the additional steam released via this path would only be a small fraction of total steam released and will not adversely affect the operators ability to control decay heat removal. Therefore, this proposed change will not affect the consequences of a steam line break outside containment.

- The replacing of the "-" with and "*" is an administrative change. These valves are containment isolation valves and are Seismic Category 1 valves. Millstone Unit 3 uses an "*" in the designation of components to designate that the component is Seismic Category 1. Additionally, the word "manual" is being deleted as some of the listed valves are not manual valves.

The proposed change to Technical Specification Surveillance 4.6.1.2.a. will delete footnote "*" which referred to an exemption granted by the NRC by letter dated 5/8/95, to permit the Type A test to be delayed until RFO6. However, the current extended shutdown has significantly delayed RFO6 and NNECO intends to perform the Type A test during this midcycle shutdown. Therefore, the footnote* to surveillance 4.6.1.2.a will be deleted.

The proposed changes to reword the Technical Specifications to provide clarity and consistency include:

- Changing the wording from "not less than P_a, 53.27 psia (38.57 psig)" to "greater than or equal to P_a, 38.57 psig" in surveillances 4.6.1.1.c, 4.6.1.2.a and 4.6.1.3.b. This proposed change will word the requirements associated with these surveillances to be more consistent with other surveillances.

- Changing the wording from "P_a, 53.27 psia (38.57 psig)" to "a pressure greater than or equal to P_a, 38.57 psig" in surveillances 4.6.1.2.d. This proposed change will word the requirements associated with these surveillances to be more consistent with other surveillances.

- Changing the wording from "P_a, 53.27 psia (38.57 psig)" to "greater than or equal to P_a, 38.57 psig" in surveillances 4.6.1.2.e. This proposed change will word the requirements associated with these surveillances to be more consistent with other surveillances.

- Changing the wording from "P_a, 53.27 psia (38.57 psig)" to "P_a, 38.57 psig" in 3.6.1.2.a, 3.6.1.3.b and 4.6.1.3.a. This proposed change will word the requirements associated with these specifications to be more consistent with other specifications.

- Changing the wording contained in Bases Sections 3/4.6.1.1, 3/4.6.1.2 and 3/4.6.1.3. The proposed changes will provide further clarification for the surveillances.

The proposed changes do not alter the design, maintenance or function of the containment or containment airlocks, alter the testing of the containment or containment airlocks, or alter any assumption used in the accident analyses. Based on the above, the proposed changes are not an unreviewed safety question, would not present undue risk to health and safety of the public and are safe.

Docket No. 50-423
B16559

Attachment 5

Millstone Nuclear Power Station Unit No. 3
Proposed Revision to Technical Specification
Containment Systems
(PTSCR 3-15-97)
Significant Hazards Consideration and Environmental Considerations

June 1997

Significant Hazards Consideration

NNECO has reviewed the proposed revision in accordance with 10CFR50.92 and has concluded that the revision does not involve a significant hazards consideration (SHC). The basis for this conclusion is that the three criteria of 10CFR50.92(c) are not satisfied. The proposed revision does not involve a SHC because the revision would not:

1. Involve a significant increase in the probability or consequence of an accident previously evaluated.

   The proposed changes to Technical Specification Surveillance 4.6.1.1.a include the adding "or procedure control***" and adding footnote "***" . The changes are requested since the Residual Heat Removal System (RHR) valves, 3RHS*MV8701A/B and 3RHS*MV8702A/B, are opened during cooldown and heatup in Mode 4. Allowing these containment isolation valves to be opened is consistent with Technical Specification 3.4.1.3, Reactor Coolant System - Hot Shutdown, which allows the RHR system to be used in Mode 4. The proposed changes to open the RHR system containment isolation valves, under procedure control in Mode 4, do not change the way the RHR system is operated or change the operator's response to an accident in Mode 4.

   The proposed changes to Technical Specification Surveillance 4.6.1.1.a Footnote ** include the modification of the valves listed in the footnote. Valves 3FPW-V661, 3FPW-V666, 3SAS-V875, 3SAS-V50, 3CCP-V886, 3CCP-V887 and 3CVS-V13 are being deleted and are local manual containment isolation valves. Deleting these valves from the list of valves that are allowed to be opened under administrative control does not modify plant response to or mitigation strategy for any accident. The valves being added, 3MSS*V885, 3MSS*V886, and 3MSS*V887, are in the steam lines to the steam-driven auxiliary feedwater pump. These valves are opened to warm the steam lines prior to testing the steam-driven auxiliary feedwater pump. These valves were recently reclassified as containment isolation valves, which resulted in the need to add them to the list of valves allowed to be opened under administrative control. The administrative controls include the appropriate considerations that when required, containment integrity will be established consistent with the assumptions in the design basis analyses .

   The proposed change to Technical Specification Surveillance 4.6.1.2.a. will delete footnote "*" which referred to an exemption granted by the NRC to permit the Type A test to be delayed until RFO6. However, the current extended shutdown has significantly delayed RFO6 and NNECO intends to perform the Type A test during this midcycle shutdown. The deletion of the footnote does not alter the operation of any system or the containment or containment airlocks, as assumed for accident analyses.

Additionally, Technical Specifications 4.6.1.1, 3/4.6.1.2 and 3/4.6.1.3 and Bases Sections 3/4.6.1.1, 3/4.6.1.2 and 3/4.6.1.3 are reworded to provide clarity and consistency. These proposed changes do not alter the operation of any system or the containment or containment airlocks during accident analyses.

Therefore, the proposed revision does not involve a significant increase in the probability or consequence of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed changes to Technical Specifications 4.6.1.1, 3/4.6.1.2 and 3/4.6.1.3 and Bases Sections 3/4.6.1.1, 3/4.6.1.2 and 3/4.6.1.3 do not alter the operation of any system or the containment or containment airlocks, during normal operation or as assumed in accident analyses.

Therefore, the proposed revision does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Involve a significant reduction in a margin of safety.

The proposed changes to Technical Specifications 4.6.1.1, 3/4.6.1.2 and 3/4.6.1.3 and Bases Sections 3/4.6.1.1, 3/4.6.1.2 and 3/4.6.1.3 do not alter the design, maintenance or function of any system or the containment or the containment airlocks. Additionally, the proposed changes do not alter the testing of any system or the containment or containment airlocks, or alter any assumption used in the accident analyses.

Therefore, the proposed revision does not involve a significant reduction in a margin of safety.

In conclusion, based on the information provided, it is determined that the proposed revision does not involve an SHC.

Environmental Considerations

NNECO has reviewed the proposed license amendment against the criteria of 10CFR51.22 for environmental considerations. The proposed revision does not involve an SHC, does not significantly increase the type and amounts of effluents that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, NNECO concludes that the proposed revision meets the criteria delineated in 10CFR51.22(c)(9) for categorical exclusion from the requirements of an environmental considerations.