Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385

Dominion

AUG 27 2001

Docket No. 50-423
B18451

RE: 10 CFR 50.90

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Millstone Nuclear Power Station, Unit No. 3
Technical Specifications Change Request 3-8-01
Containment Air Lock

Pursuant to 10 CFR 50.90, Dominion Nuclear Connecticut, Inc. (DNC), hereby proposes to amend Operating License NPF-49 by incorporating the attached proposed changes into the Technical Specifications of Millstone Unit No. 3. DNC is proposing to change Technical Specification 3.6.1.3, "Containment Systems - Containment Air Locks." The Bases for this specification will be modified to address the proposed changes.

The proposed changes will revise the Technical Specification action and surveillance requirements associated with the containment air lock, and expand the current guidance provided to address inoperable air lock components. The operability requirements for the containment air lock will remain the same.

Attachment 1 provides a discussion of the proposed changes and the Safety Summary. Attachment 2 provides the Significant Hazards Consideration. Attachment 3 provides the marked-up version of the appropriate pages of the current Technical Specifications. Attachment 4 provides the retyped pages of the Technical Specifications.

Environmental Considerations

DNC has evaluated the proposed changes against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.22. DNC has determined that the proposed changes meet the criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92(b). This determination is based on the fact that the changes are being proposed as an amendment to a license issued pursuant to 10 CFR 50 that changes a requirement with

A001

respect to use of a facility component located within the restricted area, as defined by 10 CFR 20, or that changes a surveillance requirement, and that the amendment request meets the following specific criteria.

(i) The proposed changes involve no Significant Hazards Consideration.

As demonstrated in Attachment 2, the proposed changes do not involve a Significant Hazards Consideration.

(ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released off site.

The proposed changes will revise the Technical Specification action and surveillance requirements associated with the containment air lock. However, the operability requirements for the containment air lock will remain the same. The proposed changes are consistent with the design basis of the plant. The proposed changes will not result in an increase in power level, will not increase the production of radioactive waste and byproducts, and will not alter the flowpath or method of disposal of radioactive waste or byproducts. Therefore, the proposed changes will not increase the type and amounts of effluents that may be released off site.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes will revise the Technical Specification action and surveillance requirements associated with the containment air lock. However, the operability requirements for the containment air lock will remain the same. The proposed changes will not result in changes in the configuration of the facility. There will be no change in the level of controls or methodology used for processing radioactive effluents or the handling of solid radioactive waste. There will be no change to the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from the proposed changes.

Conclusions

The proposed changes do not involve a significant impact on public health and safety (see the Safety Summary provided in Attachment 1) and do not involve a Significant Hazards Consideration pursuant to the provisions of 10 CFR 50.92 (see the Significant Hazards Consideration provided in Attachment 2). In addition, we have concluded the proposed changes are safe.

Site Operations Review Committee and Nuclear Safety Assessment Board

The Site Operations Review Committee and Nuclear Safety Assessment Board have reviewed and concurred with the determinations.

Schedule

We request issuance of this amendment for Millstone Unit No. 3 prior to April 30, 2002, with the amendment to be implemented within 30 days of issuance.

State Notification

In accordance with 10 CFR 50.91(b), a copy of this License Amendment Request is being provided to the State of Connecticut.

There are no regulatory commitments contained within this letter.

If you should have any questions on the above, please contact Mr. Ravi Joshi at (860) 440-2080.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.

J. Alan Price, Vice President
Nuclear Technical Services - Millstone

Sworn to and subscribed before me

this 27 day of August, 2001

Donna Lynne Williams
Notary Public

My Commission expires Nov 30 2001

Attachments (4)

cc: See next page

cc: H. J. Miller, Region I Administrator
V. Nerses, NRC Senior Project Manager, Millstone Unit No. 3
NRC Senior Resident Inspector, Millstone Unit No. 3

Director
Bureau of Air Management
Monitoring and Radiation Division
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Docket No. 50-423
B18451

Attachment 1

Millstone Nuclear Power Station, Unit No. 3

Technical Specifications Change Request 3-8-01
Containment Air Lock
Discussion of Proposed Changes and Safety Summary

Technical Specifications Change Request 3-8-01
Containment Air Lock
Discussion of Proposed Changes and Safety Summary

Introduction

Dominion Nuclear Connecticut, Inc. (DNC), hereby proposes to amend Operating License NPF-49 by incorporating the attached proposed changes into the Technical Specifications of Millstone Unit No. 3. DNC is proposing to change Technical Specification 3.6.1.3, "Containment Systems - Containment Air Locks." The Bases for this specification will be modified to address the proposed changes.

The proposed changes will revise the Technical Specification action and surveillance requirements associated with the containment air lock, and expand the current guidance provided to address inoperable air lock components. The operability requirements for the containment air lock will remain the same.

The Nuclear Regulatory Commission (NRC) has approved similar Technical Specification changes for the Beaver Valley Power Station (Amendment No. 190 to Facility Operating License No. DPR-66 and Amendment No. 72 to Facility Operating License No. NPF-73, dated July 26, 1995).

Proposed Changes

1. All of the action requirements will be modified by adding a note (Insert A) before the specific action items. This note will allow entry and exit through the containment air lock doors, even if the applicable action item requires the containment air lock doors to be closed. Use of the containment air lock doors is acceptable in this situation only to allow repair activities of inoperable air lock components. This is a less restrictive change.

2. Action Item a.

   a. The word "only" will be added to Action Item a. This will provide additional clarification to ensure that this action requirement will only be utilized to address one inoperable air lock door. This will not result in any technical change to the current requirement.

   b. The phrase "Maintain at least the OPERABLE air lock door closed*" will be replaced with the phrase "Verify the OPERABLE air lock door is closed within 1 hour" in Action Item a.1. The proposed modification will not change the requirement to ensure the operable air lock door is closed. It will provide a specific time (1 hour) to accomplish this action. Since the current requirement does not specify a time, an immediate response would be required. This is a less restrictive change.

c. The asterisk (*) associated with the word "closed" in Action Item a.1 and the associated footnote will be removed. This footnote is no longer necessary with the proposed addition of the note (Insert A) to the action requirements previously discussed. The proposed note, which allows use of the air lock for air lock component repair activities, will include the inner door repair activities covered by the current footnote. This is a less restrictive change since the proposed note will not limit the total time a door can be open to the current cumulative limit of 1 hour per year.

d. The phrase "until performance of the next required overall air lock leakage test" will be removed from Action Item a.2. As a result of the proposed modifications to the action requirements for an inoperable air lock (Insert B Action Item c.), it is not necessary to specify this constraint. With the proposed changes, if an inoperable air lock door prevents performance of the overall air lock leakage test, the air lock would be declared inoperable when the current test expires and a plant shutdown would be required. Therefore, the proposed modification will not change the current requirement.

3. A new Action Item b. will be added (Insert B) to address an inoperable containment air lock interlock mechanism. If this situation occurred with the current action requirements, a plant shutdown in accordance with current Action Item b. would be required if the interlock mechanism was not restored within 24 hours. The proposed action requirement would allow plant operation to continue indefinitely with an inoperable interlock mechanism provided an operable air lock door is locked closed and periodically verified. This less restrictive change is consistent with the current requirement for an inoperable air lock door (Action Item a.). In addition, a provision is included to allow use of the air lock for containment access if a dedicated individual is used to ensure only one door is opened at a time (i.e., replaces the inoperable interlock mechanism).

4. The current Action Item b. will become Action Item c. to accommodate the addition of the new Action Item b. Additional changes, described below, will be made.

   a. The proposed action requirement will be clarified to ensure that this action requirement will only be utilized to address air lock inoperability conditions not specifically addressed by the proposed Action Items a. and b.

   b. An additional requirement will be added to immediately initiate action to evaluate overall containment leakage rate per Technical Specification 3.6.1.2. This will ensure the impact of air lock inoperability on containment leakage will be promptly evaluated to detect degradation of the containment barrier. This is a more restrictive change.

c. A specific time (1 hour) to ensure an air lock door is closed will be added. The proposed modification will not change the requirement to ensure an air lock door is closed. Since the current requirement does not specify a time, an immediate response would be required. This is a less restrictive change.

5. Surveillance Requirement (SR) 4.6.1.3.a

a. SR 4.6.1.3.a will be modified to clarify that the leakage through the containment air lock will be evaluated against the requirements specified in Technical Specification 3.6.1.2. This will ensure the containment air lock leakage results are accounted for in the combined Type B and C containment leakage rate. The addition of this clarification will not result in any technical change to this surveillance requirement.

b. SR 4.6.1.3.a will be modified to clarify that an inoperable air lock door does not invalidate the current valid overall air lock leakage test. The action requirements associated with one inoperable air lock door are sufficient to ensure containment integrity is maintained. The addition of this clarification will not result in any technical change to this surveillance requirement.

6. The frequency of performance of SR 4.6.1.3.c will be changed from once per 6 months to once per 24 months. The proposed frequency is reasonable based on the simplicity of the interlock and that the interlock is not normally challenged during containment entries due to the use of procedural controls. This is a less restrictive change.

7. The Bases for Technical Specification 3.6.1.3 will be modified to be consistent with the proposed changes.

Safety Summary

The proposed changes will revise the Technical Specification action and surveillance requirements associated with the containment air lock, and expand the current guidance provided to address inoperable air lock components. The operability requirements for the containment air lock will remain the same.

The proposed change to add a note (Insert A) that will apply to all of the action requirements will allow entry and exit through the containment air lock doors when a door is required to be closed to comply with the applicable action requirement, but only to perform air lock component repairs. It does not permit use of the air lock for any other reason when an air lock door is required to be closed by the applicable action requirement. As a result, there may be a short time period during which the containment boundary will not be intact (e.g., during access through the remaining

operable door). This is acceptable since during the short time period in which a door is expected to be open, both the probability of occurrence of an event that could pressurize the containment atmosphere and the associated risk are low. After each entry and exit, the door must be immediately closed.

The addition of this note will allow the deletion of the footnote to Action Item a.1 which currently restricts the time the outer air lock door can be open with an inoperable inner air lock door to 1 hour cumulative time per year. It is not necessary to require this time to be tracked since the outer door would only be opened briefly to allow access to the inoperable inner door, and repairs to restore the inner door to operable status are expected to be performed in an expeditious manner.

The proposed changes to the action requirements will address all combinations of inoperable air lock equipment. Action Item a. will only address 1 inoperable air lock door. Action Item b. will only address an inoperable air lock interlock mechanism. Action Item c. will address everything else not covered by Action Items a. and b. This approach is consistent with the current action requirements which only use two action items to address all combinations of inoperable air lock equipment. However, the use of three action items will allow an inoperable air lock interlock mechanism to be addressed separately.

The proposed changes to Action Item a. will not change the requirement for the remaining operable air lock door to be locked closed for continued plant operation. Either air lock door is adequate to control any potential radioactive release from containment during an accident to within the limits assumed by the safety analysis. The 1 hour time period proposed to verify the operable air lock door is closed, instead of the current wording to maintain the door closed, will provide specific guidance to the plant operators. A time limit of 1 hour is not significantly different from the current "maintain" requirement which may be interpreted as requiring immediate action. The 1 hour time period is a reasonable amount of time to verify the operable air lock door is closed. In addition, it is consistent with the action requirements of Technical Specification 3.6.1.1 to restore containment integrity which may be challenged with an inoperable air lock door. This is acceptable due to the low probability of an event that could pressurize the containment during this time.

Removing the restriction that plant operation with an inoperable air lock door can only continue until performance of the next required overall air lock leakage test will not result in any technical change since this requirement will be contained in the proposed Action Item c. The proposed Action Item c., which would apply if the current overall air lock leakage test has expired and the inoperable air lock door prevents performance of this test, would require a plant shutdown. Therefore, the proposed modification will not change the current requirements.

The new actions proposed (Action Item b.) to address an inoperable containment air lock interlock mechanism are less restrictive than the current requirements which

require restoration within 24 hours, or the plant is to be shut down. Requiring a plant shutdown if the interlock mechanism is not repaired is too restrictive since this situation does not potentially challenge containment integrity unless the air lock is used for access to containment. In this situation, since the air lock and associated doors are operable, the potential for excessive leakage from containment would only occur if both air locks doors were opened simultaneously. The proposed action requirements will eliminate this situation by requiring an air lock door to be locked closed and periodically verified, and require the use of a dedicated individual to ensure only one door is opened at a time (i.e., replaces the inoperable interlock mechanism) when it is necessary to use the airlock for access to containment. Therefore, a plant shutdown is not necessary. As a result, continued plant operation in accordance with the proposed action requirement is acceptable and will not adversely affect containment integrity.

The proposed action requirement to immediately initiate action to evaluate overall containment leakage rate per Technical Specification 3.6.1.2 if the containment air lock is inoperable for reasons not specifically addressed by proposed Action Items a. and b. is a more restrictive change. This change will ensure the impact of air lock inoperability on containment leakage will be promptly evaluated to detect degradation of the containment barrier. If it is determined that excessive containment leakage may occur during an accident, the requirements of Technical Specification 3.6.1.2 would then provide the appropriate requirements.

The proposed changes to the current Action Item b. (proposed Action Item c.) will not change the requirement for an air lock door to be locked closed. Either air lock door is adequate to control any potential radioactive release from containment during an accident to within the limits assumed by the safety analysis. The 1 hour time period proposed to verify an air lock door is closed, instead of the current wording to maintain the door closed, will provide specific guidance to the plant operators. A time limit of 1 hour is not significantly different from the current "maintain" requirement which may be interpreted as requiring immediate action. The 1 hour time period is a reasonable amount of time to verify an air lock door is closed. In addition, it is consistent with the action requirements of Technical Specification 3.6.1.1 to restore containment integrity which may be challenged with an inoperable air lock. This is acceptable due to the low probability of an event that could pressurize the containment during this time.

The proposed changes to SR 4.6.1.3.a will ensure the containment air lock leakage results are accounted for in the combined Type B and C containment leakage rate, and clarify that an inoperable air lock door does not invalidate the current valid overall air lock leakage test. Properly accounting for containment air lock leakage will ensure total containment leakage is consistent with the safety analysis. Specifying that an inoperable air lock door does not invalidate the current overall air lock leakage test is reasonable since either air lock door is adequate to control any potential radioactive release from containment during an accident to within the limits assumed by the safety analysis. After the inoperable door is repaired, testing will be performed, as required, to verify the air lock door is functioning properly prior to declaring the door operable.

This testing will ensure containment air lock integrity has been restored.

The proposed change to the frequency of performance of SR 4.6.1.3.c from once per 6 months to once per 24 months is reasonable based on the simplicity of the interlock and that the interlock is not normally challenged during containment entries due to the use of procedural controls. In addition, historical interlock testing results do not indicate a failure rate that would require the current 6 month frequency to be maintained, and the proposed frequency is consistent with current industry guidelines.

The proposed changes to the Bases for Technical Specification 3.6.1.3 are consistent with the proposed Technical Specification changes.

The proposed changes to the action and surveillance requirements of Technical Specification 3.6.1.3 are consistent with generic industry guidance contained in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," Revision 2, April 2001 (Technical Specification 3.6.2). NUREG-1431, Rev. 2, includes TSTF-17, Rev. 2, which changed the surveillance frequency for the containment air lock interlock mechanism from 184 days to 24 months.

The proposed changes to Technical Specification 3.6.1.3 will not adversely affect the availability or operation of the equipment used to mitigate the design basis accidents. The operability requirements for the containment air locks will remain the same. The proposed action requirements provide appropriate compensatory actions and restoration times to ensure the integrity of the containment air lock is maintained, or a plant shutdown will be required. The proposed surveillance requirement changes will not adversely affect the testing performed to ensure the containment air lock is operable. There will be no adverse effect on plant operation. The plant response to the design basis accidents will not change. Therefore, there will be no adverse impact on public health and safety. Thus, the proposed changes are safe.

Docket No. 50-423
B18451

Attachment 2

Millstone Nuclear Power Station, Unit No. 3

Technical Specifications Change Request 3-8-01
Containment Air Lock
Significant Hazards Consideration

Technical Specifications Change Request 3-8-01
Containment Air Lock
Significant Hazards Consideration

Description of License Amendment Request

Dominion Nuclear Connecticut, Inc. (DNC), hereby proposes to revise the Millstone Unit No. 3 Technical Specifications as described in this License Amendment Request. DNC is proposing to change Technical Specification 3.6.1.3, "Containment Systems - Containment Air Locks." The proposed changes will revise the action and surveillance requirements associated with the containment air lock. The operability requirements for the containment air lock will remain the same. Refer to Attachment 1 of this submittal for a detailed discussion of the proposed changes.

Significant Hazards Consideration

In accordance with 10 CFR 50.92, DNC has reviewed the proposed changes and has concluded they do not involve a Significant Hazards Consideration (SHC). The basis for this conclusion is that the three criteria of 10 CFR 50.92(c) are not compromised. The proposed changes do not involve an SHC because the changes would not:

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

   The proposed Technical Specification changes to revise the action and surveillance requirements associated with the containment air lock will not cause an accident to occur and will not result in any change in the operation of the associated accident mitigation equipment. The containment air lock is not an accident initiator. The proposed changes will not revise the operability requirements (e.g., leakage limits) for the containment air lock. Proper operation of the containment air lock will still be verified. As a result, the design basis accidents will remain the same postulated events described in the Millstone Unit No. 3 Final Safety Analysis Report, and the consequences of the design basis accidents will remain the same. Therefore, the proposed changes will not increase the probability or consequences 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 the Technical Specifications do not impact any system or component that could cause an accident. The proposed changes will not alter the plant configuration (no new or different type of equipment will be installed) or require any unusual operator actions. The proposed changes will not alter the way any structure, system, or component functions, and will not significantly alter

the manner in which the plant is operated. The response of the plant and the operators following an accident will not be different. In addition, the proposed changes do not introduce any new failure modes. Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any accident previously analyzed.

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

The proposed Technical Specification changes to revise the action and surveillance requirements associated with the containment air lock will not cause an accident to occur and will not result in any change in the operation of the associated accident mitigation equipment. The operability requirements for the containment air lock have not been changed. The containment air lock will continue to function as assumed in the safety analysis. In addition, the proposed changes will not adversely affect equipment design or operation, and there are no changes being made to the Technical Specification required safety limits or safety system settings that would adversely affect plant safety. Therefore, the proposed changes will not result in a reduction in a margin of safety.

Docket No. 50-423
B18451

Attachment 3

Millstone Nuclear Power Station, Unit No. 3

Technical Specifications Change Request 3-8-01
Containment Air Lock
Marked Up Pages

Technical Specifications Change Request 3-8-01
Containment Air Lock
Marked Up Pages

Changes to the following Technical Specification pages have been proposed.

Technical Specification Section Number(s)	Title(s) of Section(s)	Page and Revision Numbers
3/4.6.1.3	Containment Systems Containment Air Locks	3/4 6-5 Amend. 186 3/4 6-6 Amend. 186
3/4.6.1	Primary Containment Containment Air Locks Bases	B 3/4 6-1a Amend. 186

NO CHANGE FOR INFORMATION ONLY

CONTAINMENT INTEGRITY

1.7 CONTAINMENT INTEGRITY shall exist when:

a. All penetrations required to be closed during accident conditions are either:

1) Capable of being closed by an OPERABLE containment automatic isolation valve system, or operator action during periods when containment isolation valves may be opened under administrative control per Specification 4.6.1.1a.

2) Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions.

b. All equipment hatches are closed and sealed,

c. Each air lock is in compliance with the requirements of Specification 3.6.1.3,

d. The containment leakage rates are within the limits of the Containment Leakage Rate Testing Program, and

e. The sealing mechanism associated with each penetration (e.g., welds, bellows, or O-rings) is OPERABLE.

CONTROLLED LEAKAGE

1.8 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.

CORE ALTERATIONS

1.9 CORE ALTERATIONS shall be the movement of any fuel, sources, reactivity control components, or other components affecting reactivity within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.

DOSE EQUIVALENT I-131

1.10 DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microCurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in NRC Regulatory Guide 1.109, Revision 1, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I."

$\bar{E}$ - AVERAGE DISINTEGRATION ENERGY

1.11 $\bar{E}$ shall be the average (weighted in proportion to the concentration of each radionuclide in the sample) of the sum of the average beta and gamma energies per disintegration (MeV/d) for the radionuclides in the sample.

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

November 2, 2000
NO CHANGE
FOR INFORMATION ONLY

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; and

b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3.

c. Deleted

---

* 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. Manual valves 3SSP*V13, 3SSP*V14, 3HCS*V2, 3HCS*V3, 3HCS*V9, 3HCS*V10, 3HCS*V6, 3HCS*V13, 3CHS*V371, 3MSS*V885, 3MSS*V886, 3MSS*V887. Remote manual valves 3RHS*MV8701A, 3RHS*MV8701B, 3RHS*MV8702A, 3RHS*MV8702B.

November 2, 2000

NO CHANGE
FOR INFORMATION ONLY

LIMITING CONDITION FOR OPERATION

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

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

ACTION:

With the containment leakage rates exceeding the limits, restore the leakage rates to within limits within 1 hour or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated in conformance with the criteria specified in the Containment Leakage Rate Testing Program.

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 in accordance with the Containment Leakage Rate Testing Program.

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

ACTION:

INSERT A

a. With only one containment air lock door inoperable:

1. ~~Maintain at least~~ Verify the OPERABLE air lock door ~~closed*~~ is closed within 1 hour 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.

INSERT B

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.

INSERT A - Page 3/4 6-5

NOTE

Entry and exit through the containment air lock doors is permitted to perform repairs on the affected air lock components.

INSERT B - Page 3/4 6-5

b. With only the containment air lock interlock mechanism inoperable, verify an OPERABLE air lock door is closed within 1 hour and lock an OPERABLE air lock door closed within 24 hours. Verify an OPERABLE air lock door is locked closed at least once per 31 days thereafter. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (Entry into and exit from containment is permissible under the control of a dedicated individual.)

c. With the containment air lock inoperable, except as specified in ACTION a. or ACTION b. above, immediately initiate action to evaluate overall containment leakage rate per Specification 3.6.1.2 and verify an air lock door is closed within 1 hour. Restore the air lock to OPERABLE status within 24 hours. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

a. By verifying leakage results in accordance with the Containment Leakage Rate Testing Program. INSERT C

b. Deleted

c. At least once per ~~6~~ 24 months by verifying that only one door in each air lock can be opened at a time.

INSERT C - Page 3/4 6-6

Containment air lock leakage test results shall be evaluated against the leakage limits of Technical Specification 3.6.1.2. (An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test.)

3/4.6.1 PRIMARY CONTAINMENT

NO CHANGE FOR INFORMATION ONLY

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 locked or sealed closed containment isolation valves on an intermittent basis under administrative control includes the following considerations: (1) stationing an operator, who is in constant communication with control room, at the valve controls, (2) instructing this operator to close these valves in an accident situation, and (3) assuring that environmental conditions will not preclude access to close the valves and that this action will prevent the release of radioactivity outside the containment.

When the Residual Heat Removal (RHR) System is placed in service in the plant cooldown mode of operation, the RHR suction isolation remotely operated valves 3RHS*MV8701A and 3RHS*MV8701B, and/or 3RHS*MV8702A and 3RHS*MV8702B are opened. These valves are normally operated from the control room. They do not receive an automatic containment isolation closure signal, but are interlocked to prevent their opening if Reactor Coolant System (RCS) pressure is greater than approximately 412.5 psia. When any of these valves are opened, either one of the two required licensed (Reactor Operator) control room operators can be credited as the operator required for administrative control. It is not necessary to use a separate dedicated operator.

3/4.6.1.2 CONTAINMENT LEAKAGE

The limitations on containment leakage rates, as specified in the Containment Leakage Rate Testing Program, 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. The leakage rates are verified by surveillance testing, as specified in the Containment Leakage Rate Testing Program, 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

3/4.6.1.2 CONTAINMENT LEAKAGE (continued)

are representative of those which would occur at accident pressure while meeting the intent of the LCO. This test methodology is in accordance with the Containment Leakage Rate Testing Program.

The surveillance testing for measuring leakage rates are in accordance with the Containment Leakage Rate Testing Program.

The enclosure building bypass leakage paths are listed in the "Technical Requirements Manual." 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 Operations Review Committee.

3/4.6.1.3 CONTAINMENT AIR LOCKS (INSERT D)

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 is performed in accordance with the Containment Leakage Rate Testing Program, which ensures 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.

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).

INSERT D - Page B3/4 6-1a (Page 1 of 2)

The ACTION requirements are modified by a Note that allows entry and exit to perform repairs on the affected air lock components. This means there may be a short time during which the containment boundary is not intact (e.g., during access through the OPERABLE door). The ability to open the OPERABLE door, even if it means the containment boundary is temporarily not intact, is acceptable due to the low probability of an event that could pressurize the containment during the short time in which the OPERABLE door is expected to be open. After each entry and exit, the OPERABLE door must be immediately closed.

ACTION a. is only applicable when one air lock door is inoperable. With only one air lock door inoperable, the remaining OPERABLE air lock door must be verified closed within 1 hour. This ensures a leak tight containment barrier is maintained by use of the remaining OPERABLE air lock door. The 1 hour requirement is consistent with the requirements of Technical Specification 3.6.1.1 to restore CONTAINMENT INTEGRITY. In addition, the remaining OPERABLE air lock door must be locked closed within 24 hours and then verified periodically to ensure an acceptable containment leakage boundary is maintained. Otherwise, a plant shutdown is required.

ACTION b. is only applicable when the air lock door interlock mechanism is inoperable. With only the air lock interlock mechanism inoperable, an OPERABLE air lock door must be verified closed within 1 hour. This ensures a leak tight containment barrier is maintained by use of an OPERABLE air lock door. The 1 hour requirement is consistent with the requirements of Technical Specification 3.6.1.1 to restore CONTAINMENT INTEGRITY. In addition, an OPERABLE air lock door must be locked closed within 24 hours and then verified periodically to ensure an acceptable containment leakage boundary is maintained. Otherwise, a plant shutdown is required. In addition, entry into and exit from containment under the control of a dedicated individual stationed at the air lock to ensure that only one door is opened at a time (i.e., the individual performs the function of the interlock) is permitted.

INSERT D - Page B3/4 6-1a (Page 2 of 2)

ACTION c. is applicable when both air lock doors are inoperable, or the air lock is inoperable for any other reason excluding the door interlock mechanism. With both air lock doors inoperable or the air lock otherwise inoperable, an evaluation of the overall containment leakage rate per Specification 3.6.1.2 shall be initiated immediately, and an air lock door must be verified closed within 1 hour. An evaluation is acceptable since it is overly conservative to immediately declare the containment inoperable if both doors in the air lock have failed a seal test or if overall air lock leakage is not within limits. In many instances (e.g., only one seal per door has failed), containment remains OPERABLE, yet only 1 hour (per Specification 3.6.1.1) would be provided to restore the air lock to OPERABLE status prior to requiring a plant shutdown. In addition, even with both doors failing the seal test, the overall containment leakage rate can still be within limits. The 1 hour requirement is consistent with the requirements of Technical Specification 3.6.1.1 to restore CONTAINMENT INTEGRITY. In addition, the air lock and/or at least one air lock door must be restored to OPERABLE status within 24 hours or a plant shutdown is required.

Surveillance Requirement 4.6.1.3.a verifies leakage through the containment air lock is within the requirements specified in the Containment Leakage Rate Testing Program. The containment air lock leakage results are accounted for in the combined Type B and C containment leakage rate. Failure of an air lock door does not invalidate the previous satisfactory overall air lock leakage test because either air lock door is capable of providing a fission product barrier in the event of a design basis accident.

NO CHANGE FOR INFORMATION ONLY

PROCEDURES AND PROGRAMS (Continued)

2) Pre-planned operating procedures and backup instrumentation to be used if one or more monitoring instruments become inoperable, and

3) Administrative procedures for returning inoperable instruments to OPERABLE status as soon as practicable.

f. 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 38.57 psig.

The maximum allowable containment leakage rate L_a, at P_a, shall be 0.3 percent by weight of the containment air per 24 hours.

Leakage rate acceptance criteria are:

1) Containment overall 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 $<$ 0.60 L_a for the combined Type B and Type C tests, and $\leq$ 0.042 L_a for all penetrations that are Secondary Containment bypass leakage paths, and $<$0.75 L_a for Type A tests;

2) Air lock testing acceptance criteria are:

   a. Overall air lock leakage rate is $\leq$ 0.05 L_a when tested at $\geq$ P_a.

   b. For each door, seal leakage rate is $<$ 0.01 L_a when pressurized to $\geq$ P_a.

   The provisions of Specification 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

   The provisions of Specification 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

* An exemption to Appendix J, Option A, paragraph III.D.2(b)(ii), of 10 CFR Part 50, as approved by the NRC on December 6, 1985.

Docket No. 50-423
B18451

Attachment 4

Millstone Nuclear Power Station, Unit No. 3

Technical Specifications Change Request 3-8-01
Containment Air Lock
Retyped Pages

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 in accordance with the Containment Leakage Rate Testing Program.

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

ACTION:

> NOTE
>
> Entry and exit through the containment air lock doors is permitted to perform repairs on the affected air lock components.

a. With only one containment air lock door inoperable:

1. Verify the OPERABLE air lock door is closed within 1 hour 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 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 only the containment air lock interlock mechanism inoperable, verify an OPERABLE air lock door is closed within 1 hour and lock an OPERABLE air lock door closed within 24 hours. Verify an OPERABLE air lock door is locked closed at least once per 31 days thereafter. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (Entry into and exit from containment is permissible under the control of a dedicated individual).

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

Continued

c. With the containment air lock inoperable, except as specified in ACTION a. or ACTION b. above, immediately initiate action to evaluate overall containment leakage rate per Specification 3.6.1.2 and verify an air lock door is closed within 1 hour. Restore the air lock to OPERABLE status within 24 hours. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

a. By verifying leakage results in accordance with the Containment Leakage Rate Testing Program. Containment air lock leakage test results shall be evaluated against the leakage limits of Technical Specification 3.6.1.2. (An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test).

b. Deleted

c. At least once per 24 months by verifying that only one door in each air lock can be opened at a time.

3/4.6.1.2 CONTAINMENT LEAKAGE (continued)

are representative of those which would occur at accident pressure while meeting the intent of the LCO. This test methodology is in accordance with the Containment Leakage Rate Testing Program.

The surveillance testing for measuring leakage rates are in accordance with the Containment Leakage Rate Testing Program.

The enclosure building bypass leakage paths are listed in the "Technical Requirements Manual." 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 Operations Review Committee.

3/4.6.1.3 CONTAINMENT AIR LOCKS

The ACTION requirements are modified by a Note that allows entry and exit to perform repairs on the affected air lock components. This means there may be a short time during which the containment boundary is not intact (e.g., during access through the OPERABLE door). The ability to open the OPERABLE door, even if it means the containment boundary is temporarily not intact, is acceptable due to the low probability of an event that could pressurize the containment during the short time in which the OPERABLE door is expected to be open. After each entry and exit, the OPERABLE door must be immediately closed.

ACTION a. is only applicable when one air lock door is inoperable. With only one air lock door inoperable, the remaining OPERABLE air lock door must be verified closed within 1 hour. This ensures a leak tight containment barrier is maintained by use of the remaining OPERABLE air lock door. The 1 hour requirement is consistent with the requirements of Technical Specification 3.6.1.1 to restore CONTAINMENT INTEGRITY. In addition, the remaining OPERABLE air lock door must be locked closed within 24 hours and then verified periodically to ensure an acceptable containment leakage boundary is maintained. Otherwise, a plant shutdown is required.

ACTION b. is only applicable when the air lock door interlock mechanism is inoperable. With only the air lock interlock mechanism inoperable, an OPERABLE air lock door must be verified closed within 1 hour. This ensures a leak tight containment barrier is maintained by use of an OPERABLE air lock door. The 1 hour requirement is consistent with the requirements of Technical Specification 3.6.1.1 to restore CONTAINMENT INTEGRITY. In addition, an OPERABLE air lock door must be locked closed within 24 hours and then verified periodically to ensure an acceptable containment leakage boundary is maintained. Otherwise, a plant shutdown is required. In addition, entry into and exit from containment under the control of a dedicated individual stationed at the air lock to ensure that only one door is opened at a time (i.e., the individual performs the function of the interlock) is permitted.

ACTION c. is applicable when both air lock doors are inoperable, or the air lock is inoperable for any other reason excluding the door interlock mechanism. With both air lock doors inoperable or the air lock otherwise inoperable, an evaluation of the overall containment leakage rate per Specification 3.6.1.2

3/4.6.1.3 CONTAINMENT AIR LOCKS (continued)

shall be initiated immediately, and an air lock door must be verified closed within 1 hour. An evaluation is acceptable since it is overly conservative to immediately declare the containment inoperable if both doors in the air lock have failed a seal test or if overall air lock leakage is not within limits. In many instances (e.g., only one seal per door has failed), containment remains OPERABLE, yet only 1 hour (per Specification 3.6.1.1) would be provided to restore the air lock to OPERABLE status prior to requiring a plant shutdown. In addition, even with both doors failing the seal test, the overall containment leakage rate can still be within limits. The 1 hour requirement is consistent with the requirements of Technical Specification 3.6.1.1 to restore CONTAINMENT INTEGRITY. In addition, the air lock and/or at least one air lock door must be restored to OPERABLE status within 24 hours or a plant shutdown is required.

Surveillance Requirement 4.6.1.3.a verifies leakage through the containment air lock is within the requirements specified in the Containment Leakage Rate Testing Program. The containment air lock leakage results are accounted for in the combined Type B and C containment leakage rate. Failure of an air lock door does not invalidate the previous satisfactory overall air lock leakage test because either air lock door is capable of providing a fission product barrier in the event of a design basis accident.

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 is performed in accordance with the Containment Leakage Rate Testing Program, which ensures 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.

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).