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10 CFR Part 50  
Section 50.90

US Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

**MONTICELLO NUCLEAR GENERATING PLANT**  
Docket No. 50-263 License No. DPR-22

**License Amendment Request for**  
**Conversion to Option B for Containment Leak Rate Testing**

Nuclear Management Company, LLC hereby requests changes to the Technical Specifications (TS), Appendix A of Operating License DPR-22, for the Monticello Nuclear Generating Plant. This request is submitted pursuant to and in accordance with the provisions of 10 CFR Part 50, Section 50.90.

The purpose of this License Amendment Request is to propose changes to the Monticello TS that would allow the use of 10 CFR 50, Appendix J, Option B, for Types B and C containment leak rate testing. To accomplish this, the proposed changes request a revision to the Surveillance Requirements in TS 3.7/4.7. Additionally, this change requests a revision to provide a new TS Section 6.8.M, "Primary Containment Leakage Rate Testing Program," in the Programs and Manuals Section of the Monticello TS. The Primary Containment Leakage Rate Testing Program will be implemented at Monticello in accordance with the guidance provided in Nuclear Energy Institute (NEI) 94-01, Revision 0, "Industry Guideline For Implementing Performance-Based Option Of 10 CFR Part 50, Appendix J." Additionally, this TS program wording and format will be consistent with the NRC approved guidance provided in Option B of the Primary Containment Leakage Rate Testing Program included in NUREG-1433, "Standard Technical Specifications General Electric Plants, BWR/4," Revision 2, dated April 2001.

Exhibit A contains the Proposed Changes, Reasons for Change, a Safety Evaluation, a Determination of No Significant Hazards Consideration and an Environmental Assessment. Exhibit B contains current Monticello Technical Specification pages marked up with the proposed changes. Exhibit C contains revised Monticello Technical Specification pages.

AO17



## Exhibit A

### Evaluation of Proposed Changes to the Monticello Technical Specifications

#### License Amendment Request for Conversion to 10 CFR 50, Appendix J, Option B for Monticello

Pursuant to and in accordance with the requirements of 10 CFR Part 50, Sections 50.59 and 50.90 Nuclear Management Company, LLC (NMC) hereby request a change to the Technical Specifications (TS), Appendix A of Operating License DPR-22, for the Monticello Nuclear Generating Plant.

#### Background

This amendment request proposes revisions to the Monticello TS that would allow the use of 10 CFR 50, Appendix J, Option B, for Types B and C containment leak rate testing. The requested changes propose a revision to the Surveillance Requirements in TS 3.7/4.7 and provide a new TS Section 6.8.M, "Primary Containment Leakage Rate Testing Program," in the Programs and Manuals Section of the Monticello TS. This new TS program is formatted to be consistent with the NRC approved guidance provided in Option B of the Primary Containment Leakage Rate Testing Program included in NUREG-1433, "Standard Technical Specifications General Electric Plants, BWR/4," Revision 2, dated April 2001.

#### Proposed Changes and Reason for Changes

Nuclear Management Company, LLC proposes to revise the Monticello current TS (CTS) requirements for Type B and C containment leak rate testing to convert, from the current 10 CFR 50, Appendix J, Option A requirements, to 10 CFR 50, Appendix J, Option B requirements. Upon NRC approval of the requested changes, the leakage rate testing requirements will be defined in the Monticello Primary Containment Leakage Rate Testing Program in accordance with the guidance provided in 10 CFR Part 50, Appendix J. The Monticello Operating License includes provisions to meet 10 CFR 50, which includes 10 CFR 50, Appendix J. The conversion to Option B affects Monticello TS Limiting Conditions for Operation (LCO) 3.7.A.2.b, 3.7.A.2.c, and 3.7.A.4, and Monticello TS Surveillance Requirements (SR) 4.7.A.2.a, 4.7.A.2.b, and 4.7.A.2.c, additionally TS 6.8.L and 6.8.M have been added to the Monticello proposed TS (PTS). Also, the affected TS Bases pages are included. The changes include:

1. The CTS SR 4.7.A.2.a currently addresses Type A and Type B testing requirements to demonstrate primary containment integrity. The PTS SR has been reworded to state, "Perform required visual examinations and leakage rate testing, except for primary containment airlock testing, in accordance with the Primary Containment Leakage Rate Testing Program." The CTS SR 4.7.A.2.a leak rate test pressure has been relocated to PTS SR 6.8.M.2, and the leakage rate limit specified by the CTS SR has been relocated to PTS SR 6.8.M.4.a. Additionally, because of the restructuring of the PTS SR, all Type A, B and C containment leakage rate testing, except for airlock testing, will be performed per the

## Exhibit A

### Evaluation of Proposed Changes to the Monticello Technical Specifications

requirements of PTS SR 4.7.A.2.a and in accordance with the leakage limits specified in PTS 6.8.M, the Primary Containment Leakage Rate Testing Program.

2. CTS LCO 3.7.A.2.b currently addresses leakage rate limits when Primary Containment Integrity is required. This CTS LCO has been deleted because the leakage rates have been relocated to PTS 6.8.M, "Primary Containment Leakage Rate Testing Program."
3. CTS SR 4.7.A.2.b currently addresses leakage rate testing requirements in accordance with 10 CFR 50, Appendix J, Option A, for Type B and C tests and Option B for Type A tests. CTS SR 4.7.A.2.b has been deleted because the Type A, B and C containment leakage rate testing will be performed under PTS SR 4.7.A.2.a and in accordance with the specified leakage limit requirements of PTS 6.8.M, the Primary Containment Leakage Rate Testing Program.
4. CTS LCO 3.7.A.2.c.2 currently addresses primary containment air lock leakage requirements when Primary Containment Integrity is required. This CTS LCO has been deleted because the air lock leakage requirements have relocated to PTS 6.8.M.4.b, of the Primary Containment Leakage Rate Testing Program. The remainder of CTS LCO 3.7.A.2.c is revised administratively to reflect the deletion of CTS LCO 3.7.A.2.c.2.
5. CTS SR 4.7.A.2.c currently addresses primary containment airlock leakage rate testing in accordance with 10 CFR 50, Appendix J. This CTS SR has been revised into two (2) parts. PTS SR 4.7.A.2.c.1 will state: "The primary containment airlock leakage rate testing shall be performed in accordance with the Containment Leakage Rate Testing Program." PTS SR 4.7.A.2.c.2 will state: "Once per 24 months, verify that only one door in the primary containment airlock can be opened at a time."
6. PTS 6.8.L will be reserved for an additional TS program that may be submitted in the future and preserves the numbering of TS programs consistent with the Standard Technical Specifications.
7. PTS 6.8.M will be added as a new TS program that will provide the requirements for the Primary Containment Leakage Rate Testing Program. This program shall establish the leakage rate testing limits of the containment as required by 10 CFR 50.54(o) and 10 CFR Part 50, Appendix J, Option B, as modified by approved exceptions. This program shall be in accordance with the guidance contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995, and will be formatted to be consistent with the NRC approved guidance provided in Option B of the Primary Containment Leakage Rate Testing Program included in NUREG-1433, "Standard Technical Specifications General Electric Plants, BWR/4," Revision 2, dated April 2001.

## Exhibit A

### Evaluation of Proposed Changes to the Monticello Technical Specifications

The proposed changes are necessary to allow Monticello to use 10 CFR Part 50, Appendix J, Option B, for the performance of Type B and C containment leak rate test. This will provide a significant cost savings to the Monticello Nuclear Generating Plant.

Additionally, changes to the TS Bases are also included in this submittal to support the requested revisions.

#### Safety Evaluation and Justification

The proposed changes identified above are justified as follows:

1. The rewording of CTS SR 4.7.A.2.a is acceptable because it provides the wording necessary to support the conversion of the Monticello TS to the requirements of 10 CFR 50, Appendix J, Option B. This change will consolidate the Type A, B and C containment leakage rate testing under this one SR and testing leakage limits will be in accordance with the Primary Containment Leakage Rate Testing Program.
2. The deletion of CTS LCO 3.7.A.2.b is acceptable because the leakage rate limit requirements, detailed in this CTS LCO, are being relocated to the PTS 6.8.M. This change will consolidate the Type A, B and C containment leakage rate limits and the primary containment air lock leakage rate limits in one TS program. Additionally, the shutdown requirement of CTS LCO 3.7.A.2.b is already included in the shutdown requirement associated with PTS LCO 3.7.A.2.a.(4).
3. The deletion of CTS SR 4.7.A.2.b is acceptable because Type A, B and C containment leakage rate testing will be performed under PTS SR 4.7.A.2.a and in accordance with the requirements specified in PTS 6.8.M.1 of the Primary Containment Leakage Rate Testing Program. Specifically, the difference between CTS SR 4.7.A.2.b and PTS 6.8.M, is that the PTS allows the use of 10 CFR 50, Appendix J, Option B for Type B and C testing as well as for Type A testing.
4. The deletion of CTS LCO 3.7.A.2.c.2 is acceptable because the primary containment air lock leakage limits are being relocated to the PTS 6.8.M. This change will consolidate the air lock leakage limits and the Type A, B and C containment leakage limits in one TS program. The restructuring of the remainder of CTS LCO 3.7.A.2.c is administrative and no other requirements are revised.
5. The revisions to CTS SR 4.7.A.2.c are acceptable based on the acceptability of each of the following individual changes:
  - a. The rewording of CTS SR 4.7.A.2.c.1 is acceptable because the leakage rate testing performed in accordance with the Primary Containment Leak Rate Testing Program demonstrates that the primary containment air lock is operable and the air lock leakage rate testing requirements are being relocated to the air lock testing requirements to PTS 6.8.M.

## Exhibit A

### Evaluation of Proposed Changes to the Monticello Technical Specifications

- b. CTS SR 4.7.A.2.c.2 has been deleted by a previous License Amendment Request, which was reviewed and approved by the NRC, and this revision only removes it from the PTS, which is an administrative change.
  - c. The rewording and renumbering of CTS SR 4.7.A.2.c.3 as PTS SR 4.7.A.2.c.2 is acceptable because the renumbering is administrative and the revised interval for verifying that only one air lock door can be opened at time is essentially equivalent. The CTS requires verifying that only one door can be opened at a time every six months, but if the air lock has not been used since the last test, this test is not required. The presence of this caveat would allow operation during a complete cycle if the air lock was not opened during that time. The revised wording provides an essentially equivalent amount of time between verifying that the air lock is operable. The 24 months is acceptable because during refueling outages the air lock will be used for ingress and egress to the drywell and upon completion of the outage when primary containment integrity is required the air lock will be required to be verified operable as specified in PTS SR 4.7.A.2.c.1.
7. The addition of PTS 6.8.L is acceptable because it is reserved for future use, which is an administrative change and preserves the numbering of TS programs consistent with the Standard Technical Specifications.
8. The addition of PTS 6.8.M is acceptable because it provides for the addition of a new TS that consolidates the primary containment leakage rate testing in one TS program. This program is acceptable because not only is it formatted to be consistent with the NRC approved guidance provided in Option B of the Primary Containment Leakage Rate Testing Program included in NUREG-1433, "Standard Technical Specifications General Electric Plants, BWR/4," Revision 2, dated April 2001, but also because:
- a. PTS 6.8.M.1 provides the relocated regulatory requirements from CTS 4.7.A.2.b and revises them to establish the leakage rate testing limits of the containment as required by 10 CFR 50.54(o) and 10 CFR Part 50, Appendix J, Option B, as modified by approved exceptions. This program shall be in accordance with the guidance contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995.
  - b. PTS 6.8.M.2 provides the relocated calculated peak containment internal pressure for the design basis loss of coolant accident from CTS 4.7.A.2.a and provides the plant specific containment design pressure.
  - c. PTS 6.8.M.3 provides the relocated maximum allowable containment leakage rate from CTS 3.7.A.2.b.1.

## Exhibit A

### Evaluation of Proposed Changes to the Monticello Technical Specifications

- d. PTS 6.8.M.4 provides the leakage rate acceptance criteria for: (a) containment leakage rate which is relocated from CTS 4.7.A.2.a and CTS 3.7.A.2.b; and (b) air lock testing acceptance criteria which is relocated from CTS 3.7.A.2.c.2.
- e. PTS 6.8.M.5 provides that the provisions of SRs 4.0.D and 4.0.E are applicable to the Primary Containment Leakage Rate Testing Program. Monticello SRs 4.0.D and 4.0.E are equivalent to Standard Technical Specification SR 3.0.3 and provide requirements in the event that a Surveillance is not performed within the specified interval.
- f. PTS 6.8.M.6 provides that nothing in this TS program shall be construed to modify the testing frequencies required by 10 CFR 50, Appendix J.

The proposed changes, as described above, will allow Monticello to use a performance based containment leakage testing method. The proposed amendment requires compliance with the regulatory requirements of 10 CFR 50, Appendix J, Option B. Any exemptions to the requirements of 10 CFR 50, Appendix J will require prior NRC approval.

The proposed revisions described above will allow Monticello to adopt performance based containment leakage rate testing in accordance with 10 CFR Part 50, Appendix J, Option B, for Type B and C containment leak rate testing. Monticello previously adopted Option B for Type A tests by NRC approval and issuance of License Amendment No. 95, dated April 3, 1996. Upon approval of this proposed change, all containment leakage rate testing will be performed in accordance with 10 CFR 50, Appendix J, Option B.

The adoption of a performance-based program is acceptable because it will allow Monticello to relax the testing frequency of containment penetrations and containment isolation valves based on the performance history of leakage tests. No changes in either plant design or operational strategies will be made as a result of this revision. The use of Option B will significantly reduce the frequency of leak testing for highly reliable components provided their performance remains acceptable. This will result in reduced occupational radiological exposure, while assuring the performance of the containment safety functions as a barrier to the release of radioactivity to the environment. The extension of the testing frequency resulting from the performance-based approach will be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," and, as referenced in Regulatory Guide 1.163, NEI 94-01, "Industry Guideline for Implementing Performance-Based Option of 10 CFR 50, Appendix J."

Approval of the proposed changes will allow Monticello to implement the previously approved Option B performance-based testing for Type B and C leak rate test. Implementation of these changes will provide Monticello with a program that provides

## Exhibit A

### Evaluation of Proposed Changes to the Monticello Technical Specifications

guidance to avoid unnecessary testing and thereby provide a reduction in cost and personnel radiation exposure. These changes relate only to testing frequency, and methodology. Option B testing frequencies are based on the overall and individual component leakage rate performance. The change in risk due to the lengthening of the intervals between leakage rate tests was evaluated in NUREG-1493, "Performance-Based Leak-Test Program," and determined to be acceptable.

Monticello will review and revise as necessary administrative leakage limits in accordance with the program requirements. These limits will be selected based on performance history. A failure to meet these administrative leakage limits will require a return to the minimum 30 month test interval value.

Therefore, based on the above, NMC has concluded that the proposed revision to the Monticello TS is acceptable.

### Determination of No Significant Hazards Consideration

A change is proposed to the Monticello Technical Specifications that would allow the use of 10 CFR 50, Appendix J, Option B, for Types B and C containment leak rate testing. To accomplish this, the proposed changes request a revision to the Technical Specification Surveillance Requirements for the Monticello containment. Additionally, this change requests a revision to provide a new Technical Specifications Section, "Primary Containment Leakage Rate Testing Program," in the Programs and Manuals Section of the Monticello TS. The Primary Containment Leakage Rate Testing Program will be implemented at Monticello in accordance with the guidance provided in Nuclear Energy Institute (NEI) 94-01, Revision 0, "Industry Guideline For Implementing Performance-Based Option Of 10 CFR Part 50, Appendix J." Additionally, the proposed TS program wording and format changes are consistent with the current Monticello TS.

The proposed amendment has been evaluated to determine if it constitutes a significant hazards consideration as required by 10 CFR 50, Section 50.91, using standards provided in Section 50.92. This analysis is provided below:

1. *The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.*

The proposed changes deal exclusively with testing of features related to containment isolation. The changes only affect testing frequency and methodology. Containment leakage is not considered as an initiator of any accident previously evaluated.

Additionally, the proposed changes do not impact current plant operations or the design function of any system or component. The proposed changes do not change any accidents previously evaluated in the updated safety analysis report.

## Exhibit A

### Evaluation of Proposed Changes to the Monticello Technical Specifications

The proposed changes only affect the frequency of testing the containment penetrations and containment isolation valves. The proposed changes will allow test intervals to be extended in accordance with program requirements and 10 CFR 50, Appendix J, Option B, with reference to Regulatory Guide 1.163, and NEI 94-01, Rev. 0. The change in risk resulting from the proposed change, was evaluated by the NRC in the rule making process for implementing the Option B requirements, and are characterized in NUREG-1493. For Type B and C tests the NRC concluded that the extension of test intervals as allowed by Option B would lead to only minor increases in potential offsite dose consequences.

The performance of the leakage tests themselves is not an input or consideration in any accident previously evaluated, thus the proposed change will not increase the probability of any such accident occurring. The same operability requirements remain in place for the primary containment, therefore the consequences of an accident are not significantly increased. The proposed revision does not involve any change to the configuration or method of operation of any plant equipment that is used to mitigate the consequences of an accident, nor does it affect any assumptions or conditions in the accident analysis.

Therefore, operation of the facility in accordance with the proposed changes will not involve a significant increase in the probability or consequences of an accident previously evaluated.

- 2. The proposed amendment will not create the possibility of a new or different kind of accident from any previously evaluated.*

The proposed changes deal exclusively with testing of features related to containment isolation. The changes only affect testing frequency and methodology. The proposed changes to the TS will not result in any physical alterations to the plant configuration, no new equipment is added, no equipment interfaces are modified, and no changes to any equipment's function or the method of operating the equipment are being made. Since

the proposed changes would not change the design, configuration or operation of the plant, they would not cause the containment leak rate testing to become an accident initiator. No new or different kinds of accident modes are created.

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

- 3. The proposed amendment will not involve a significant reduction in a margin of safety.*

The proposed changes deal exclusively with testing of features of related to containment isolation. The changes only affect testing frequency and methodology. Containment leakage is not considered as an initiator of any accident previously evaluated.

## Exhibit A

### Evaluation of Proposed Changes to the Monticello Technical Specifications

The proposed changes do not exceed or alter a design basis or safety limit. The proposed changes only affect the methodology and frequency of Type B and C testing. The proposed performance based approach, provided by using Option B to 10 CFR 50, Appendix J, would continue to ensure that the containment leakage rates would not exceed the maximum allowable leakage rates defined in the Technical Specifications and assumed in the accident analysis.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the evaluation described above and pursuant to 10 CFR Part 50, Section 50.91, NMC has determined that the Monticello Nuclear Generating Plant in accordance with the proposed license amendment request does not involve any significant hazards consideration determination as defined in 10 CFR Part 50, Section 50.92.

### Environmental Assessment

Nuclear Management Company has evaluated the proposed changes and determined that:

1. The changes, as demonstrated above, do not involve a significant hazards consideration.
2. The proposed changes deletes information already contained in 10 CFR 50, Appendix J and adds references to the Primary Containment Leakage Rate Testing Program. These changes allow the use of performance based containment leakage testing methods. The proposed amendment requires compliance with the regulatory requirements of 10 CFR 50, Appendix J, Option B. Any exemptions to the regulatory requirements of 10 CFR 50, Appendix J require NRC approval. No change in either plant design or operational strategies will be made as a result of this revision.

Thus, these changes do not involve a significant change in the type or significant increase in the amounts of any effluent that may be released offsite as determined in NRC approved NUREG-1493, "Performance-Based Leak-Test Program."

3. These changes allow the use of performance based containment leakage testing methods. The proposed amendment requires compliance with the regulatory requirements of 10 CFR 50, Appendix J, Option B. Any exemptions to the requirements of 10 CFR 50, Appendix J require prior NRC approval. The use of Option B will significantly reduce the frequency of leak testing for highly reliable components provided their performance remains acceptable. This will result in reduced occupational radiation exposure, while at the same time assuring the performance of the containment safety functions as a barrier to the release of

## **Exhibit A**

### **Evaluation of Proposed Changes to the Monticello Technical Specifications**

radioactivity to the environment. Therefore, these changes do not involve a significant increase in individual or cumulative occupational radiation exposure.

Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10 CFR Part 51, Section 51.22(c)(9). Therefore, pursuant to 10 CFR Part 51, Section 51.22(b), an environmental assessment of the proposed changes is not required.

## Exhibit B

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License Amendment Request for Conversion to  
Option B for Containment Leak Rate Testing Technical Specifications

Current Monticello Technical Specification Figures  
Marked Up With Proposed Change

This Exhibit consist of current Monticello Technical Specification figures marked up with the proposed changes. The figures included in the exhibit are listed below:

TS Pages

158  
159  
160  
185  
258  
258a

### 3.0 LIMITING CONDITIONS FOR OPERATION

### 4.0 SURVEILLANCE REQUIREMENTS

#### 2. Primary Containment Integrity

- a. (1) Primary Containment Integrity as defined in Section 1, shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel, except as specified in 3.7.A.2.a.(2) or 3.7.A.2.a.(3).
- (2) Primary Containment Integrity is not required when performing low power physics tests at atmospheric pressure during or after refueling at power levels not to exceed 5 MW(t).
- (3) Primary Containment Integrity is not required when performing reactor vessel hydrostatic or leakage tests with the reactor not critical.
- (4) If requirements of 3.7.A.2.a.(1) cannot be met, restore Primary Containment Integrity within one hour or be in at least Hot Shutdown within the next 12 hours and Cold Shutdown within the following 24 hours.

#### 2. Primary Containment Integrity

- a. ~~Primary Containment Integrity shall be demonstrated after each closing of each penetration subject to Type B testing, if opened following a Type A or Type B test, by leak rate testing the seal with gas at  $\geq P_a$ , 42 psig, and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Surveillance Requirements 4.7.A.2.b for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.6La.~~ **Perform required visual examinations and leakage rate testing except for primary containment airlock testing, in accordance with the Primary Containment Leakage Rate Testing Program.**

b. ~~Deleted~~ When Primary Containment Integrity is required, leakage rates shall be limited to:

1. ~~An overall integrated leakage rate of less than or equal to  $L_a$ , 1.2 percent by weight of the containment air per 24 hours at  $P_a$ , 42 psig.~~
2. ~~A combined maximum flow path leakage rate of less than or equal to  $0.6L_a$  for all penetrations and valves, subject to Type B and C tests when pressurized to  $P_a$ , 42 psig.~~
3. ~~Less than or equal to 46 scf per hour combined maximum flow path leakage for all main steam isolation valves when tested at 25 psig.~~

~~With the measured overall integrated primary containment leakage rate exceeding  $0.75L_a$ , or the measured combined leakage rate for all penetrations and valves subject to Type B and C testing exceeding  $0.6L_a$ , or the measured combined maximum flow path leakage rate exceeding 46 scf per hour for all main steam isolation valves, restore leakage rates to less than or equal to these values prior to increasing reactor coolant system temperature above 212°F or, alternatively, restore measured leakage rates to within these limits within one hour or be in at least Hot Shutdown within the next 12 hours and in Cold Shutdown within the following 24 hours.~~

b. ~~Deleted~~ Perform required visual examinations and leakage rate testing for Type A containment integrated leakage rate tests in accordance with 10 CFR 50, Appendix J, Option B, as modified by approved exemptions, and Regulatory Guide 1.163 dated September 1995. Perform Type B and C tests in accordance with 10 CFR 50, Appendix J, Option A, as modified by approved exemptions:

1. Deleted
2. Deleted
3. Deleted
4. Deleted
5. Deleted

### 3.0 LIMITING CONDITIONS FOR OPERATION

- c. When Primary Containment Integrity is required, the primary containment airlock shall be operable with:

1. Both doors closed except when the airlock is being used, then at least one airlock door shall be closed, and
2. ~~An overall airlock leakage rate of less than or equal to 0.05La at Pa or 0.007La at 40 psig.~~

With the primary containment airlock inoperable, maintain at least one airlock door closed and restore the airlock to Operable status within 24 hours or be in at least Hot Shutdown within the next 12 hours and in Cold Shutdown within the following 24 hours.

### 4.0 SURVEILLANCE REQUIREMENTS

- c. 1. ~~The primary containment airlock shall be demonstrated operable: Perform required primary containment air lock leakage rate testing in accordance with the Containment Leakage Rate Testing Program.(\*)(\*\*)~~
1. ~~By performing overall airlock leakage rate testing in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions.~~
  2. ~~Deleted~~
  3. ~~At six month intervals by verifying that only one door can be opened at a time. If the airlock has not been used since the last door interlock test, this test is not required.~~
2. **Once per 24 months, verify that only one door in the primary containment airlock can be opened at a time.**
- d. The interior surfaces of the drywell shall be visually inspected each operating cycle for evidence of deterioration.

\* **An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test.**

\*\* **Results shall be evaluated against acceptance criteria applicable to SR 4.7.A.2.a**

Bases 4.7 (Continued) :

On September 26, 1995, Regulatory Guide 1.163 became effective providing guidance on performance based testing to the requirements of 10 CFR 50, Appendix J, Option B. Monticello has adopted ~~Option B, Section III.A of 10 CFR Part 50, Appendix J, Option B, and a Primary Containment Leakage Rate Testing Program.~~ for Type A primary reactor containment integrated leakage rate testing. Monticello will continue to perform Type B and C testing in accordance with 10 CFR Part 50, Appendix J, Option A.

**Maintaining primary containment integrity requires compliance with the visual examinations and leakage rate test requirements of the Primary Containment Leakage Rate Testing Program. Failure to meet air lock leakage testing, primary containment purge valve resilient seal leakage testing or main steam isolation valve leakage does not necessarily result in a failure of this SR. The impact of the failure to meet these SRs must be evaluated against the Type A, B and C acceptance criteria of the Primary Containment Leakage Rate Testing Program.**

**Maintaining primary containment air locks requires compliance with the leakage rate testing requirements of the Primary Containment Leakage Rate Testing Program. This SR reflects the leakage rate testing requirements with respect to air lock leakage (Type B leakage tests). The periodic testing requirements verify that the air lock leakage does not exceed the allowed fraction of the overall primary containment leakage rate. The frequency is required by the Primary Containment Leakage Rate Testing Program.**

**The SR has been modified by two footnotes. Note \* states that an inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. This is considered reasonable since either air lock door is capable of providing a fission barrier in the event of a DBA. Note \*\* has been added to this SR requiring the results to be evaluated against the acceptance criteria which is applicable to Primary Containment Integrity. This ensures that the air lock leakage is properly accounted for in determining the combined Type B and C primary containment leakage.**

**The air lock interlock mechanism is designed to prevent simultaneous opening of both doors in the air lock. Since both the inner and outer doors of an air lock are designed to withstand the maximum expected post accident primary containment pressure, closure of either door will support primary containment integrity. Thus, the interlock feature supports primary containment integrity while the air lock is being used for personnel transit in and out of the containment. Periodic testing of the interlock demonstrates that the interlock will function as designed and that the simultaneous inner and outer door opening will not inadvertently occur. Due to the purely mechanical nature of this interlock, and given that the interlock mechanism is not normally challenged when primary containment air lock door is used for entry and exit (procedures require strict adherence to single door opening), this test is only required to be performed every 24 months. The 24 month frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage, and the potential for loss of primary containment integrity if the Surveillance were performed with the reactor at power. The 24 month frequency is based on engineering judgment and is considered adequate given that the interlock is not challenged during the use of the air lock.**

## 6.8.J - RESERVED

### K. Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

1. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
2. Changes to Bases may be made without prior NRC approval provided the changes do not involve either of the following:
  - a. a change in the TS incorporated in the license; or
  - b. a change to the USAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
3. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the USAR.
4. Proposed changes to the Bases that involve changes as described in a. or b. of Specification 6.8.K.2 above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

## 6.8.L - RESERVED

### M. Primary Containment Leakage Rate Testing Program

1. This program shall establish the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR Part 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.
2. The calculated peak containment internal pressure for the design basis loss of coolant accident,  $P_a$ , is 42 psig. The containment design pressure is 56 psig.
3. The maximum allowable containment leakage rate,  $L_a$ , at  $P_a$ , shall be 1.2% of containment air weight per day

**M. Primary Containment Leakage Rate Testing Program (continued)**

**4. Leakage rate acceptance criteria are:**

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

b. Air lock testing acceptance criteria are:

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

2) For each door, leakage rate is  $\leq 0.007 L_a$  when pressurized to  $\geq 10$  psig.

5. The provisions of SRs 4.0.D and 4.0.E are applicable to the Primary Containment Leakage Rate Testing Program.

6. Nothing in these Technical Specifications shall be construed to modify the testing Frequencies required by 10 CFR 50, Appendix J.

## Exhibit C

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License Amendment Request for Conversion to  
Option B for Containment Leak Rate Testing Technical Specifications

Revised Monticello Technical Specification Figures

This Exhibit consist of revised Monticello Technical Specification figures that incorporate the proposed changes. The figures included in the exhibit are listed below:

TS Pages

158  
159  
160  
185  
258  
258a

### 3.0 LIMITING CONDITIONS FOR OPERATION

#### 2. Primary Containment Integrity

- a. (1) Primary Containment Integrity as defined in Section 1, shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel, except as specified in 3.7.A.2.a.(2) or 3.7.A.2.a.(3).
- (2) Primary Containment Integrity is not required when performing low power physics tests at atmospheric pressure during or after refueling at power levels not to exceed 5 MW(t).
- (3) Primary Containment Integrity is not required when performing reactor vessel hydrostatic or leakage tests with the reactor not critical.
- (4) If requirements of 3.7.A.2.a.(1) cannot be met, restore Primary Containment Integrity within one hour or be in at least Hot Shutdown within the next 12 hours and Cold Shutdown within the following 24 hours.

### 4.0 SURVEILLANCE REQUIREMENTS

#### 2. Primary Containment Integrity

- a. Perform required visual examinations and leakage rate testing except for primary containment air lock testing, in accordance with the Primary Containment Leakage Rate Testing Program.

**3.0 LIMITING CONDITIONS FOR OPERATION**

b. Deleted

**4.0 SURVEILLANCE REQUIREMENTS**

b. Deleted

### 3.0 LIMITING CONDITIONS FOR OPERATION

- c. When Primary Containment Integrity is required, the primary containment air lock shall be operable with both doors closed except when the air lock is being used, then at least one air lock door shall be closed.

With the primary containment air lock inoperable, maintain at least one air lock door closed and restore the air lock to Operable status within 24 hours or be in at least Hot Shutdown within the next 12 hours and in Cold Shutdown within the following 24 hours.

### 4.0 SURVEILLANCE REQUIREMENTS

- c. (1) Perform required primary containment air lock leakage rate testing in accordance with the Containment Leakage Rate Testing Program. (\*) (\*\*)
- (2) Once per 24 months, verify that only one door in the primary containment air lock can be opened at a time.
- d. The interior surfaces of the drywell shall be visually inspected each operating cycle for evidence of deterioration.

\* An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test.

\*\* Results shall be evaluated against acceptance criteria applicable to SR 4.7.A.2.a.

#### Bases 4.7 (Continued):

On September 26, 1995, Regulatory Guide 1.163 became effective providing guidance on performance based testing to the requirements of 10 CFR 50, Appendix J, Option B. Monticello has adopted 10 CFR Part 50, Appendix J, Option B, and a Primary Containment Leakage Rate Testing Program.

Maintaining primary containment integrity requires compliance with the visual examinations and leakage rate test requirements of the Primary Containment Leakage Rate Testing Program. Failure to meet air lock leakage testing, primary containment purge valve resilient seal leakage testing or main steam isolation valve leakage does not necessarily result in a failure of this SR. The impact of the failure to meet these SRs must be evaluated against the Type A, B and C acceptance criteria of the Primary Containment Leakage Rate Testing Program.

Maintaining primary containment air locks requires compliance with the leakage rate testing requirements of the Primary Containment Leakage Rate Testing Program. This SR reflects the leakage rate testing requirements with respect to air lock leakage (Type B leakage tests). The periodic testing requirements verify that the air lock leakage does not exceed the allowed fraction of the overall primary containment leakage rate. The frequency is required by the Primary Containment Leakage Rate Testing Program.

The SR has been modified by two footnotes. Note \* states that an inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. This is considered reasonable since either air lock door is capable of providing a fission barrier in the event of a DBA. Note \*\* has been added to this SR requiring the results to be evaluated against the acceptance criteria which is applicable to Primary Containment Integrity. This ensures that the air lock leakage is properly accounted for in determining the combined Type B and C primary containment leakage.

The air lock interlock mechanism is designed to prevent simultaneous opening of both doors in the air lock. Since both the inner and outer doors of an air lock are designed to withstand the maximum expected post accident primary containment pressure, closure of either door will support primary containment integrity. Thus, the interlock feature supports primary containment integrity while the air lock is being used for personnel transit in and out of the containment. Periodic testing of the interlock demonstrates that the interlock will function as designed and that the simultaneous inner and outer door opening will not inadvertently occur. Due to the purely mechanical nature of this interlock, and given that the interlock mechanism is not normally challenged when primary containment air lock door is used for entry and exit (procedures require strict adherence to single door opening), this test is only required to be performed every 24 months. The 24 month frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage, and the potential for loss of primary containment integrity if the Surveillance were performed with the reactor at power. The 24 month frequency is based on engineering judgment and is considered adequate given that the interlock is not challenged during the use of the air lock.

6.8.J - RESERVED

K. Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

1. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
2. Changes to Bases may be made without prior NRC approval provided the changes do not involve either of the following:
  - a. a change in the TS incorporated in the license; or
  - b. a change to the USAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
3. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the USAR.
4. Proposed changes to the Bases that involve changes as described in a. or b. of Specification 6.8.K.2 above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

6.8.L - RESERVED

M. Primary Containment Leakage Rate Testing Program

1. This program shall establish the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR Part 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.
2. The calculated peak containment internal pressure for the design basis loss of coolant accident,  $P_a$ , is 42 psig. The containment design pressure is 56 psig.

3. The maximum allowable containment leakage rate,  $L_a$ , at  $P_a$ , shall be 1.2% of containment air weight per day.
4. Leakage rate acceptance criteria are:
  - a. Containment leakage rate acceptance criterion is  $\leq 1.0 L_a$ . During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are  $< 0.60 L_a$  for the Type B and C tests and  $\leq 0.75 L_a$  for Type A tests.
  - b. Air lock testing acceptance criteria are:
    - 1) Overall air leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ .
    - 2) For each door, leakage rate is  $\leq 0.007 L_a$  when pressurized to  $\geq 10$  psig.
5. The provisions of SRs 4.0.D and 4.0.E are applicable to the Primary Containment Leakage Rate Testing Program.
6. Nothing in these Technical Specifications shall be construed to modify the testing Frequencies required by 10 CFR 50, Appendix J.