



September 17, 2007

L-MT-07-046  
10 CFR 50.90  
TSTF-477

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

Monticello Nuclear Generating Plant  
Docket 50-263  
Renewed Operating License No. DPR-22

License Amendment Request: Application for Technical Specification Change TSTF-477,  
Add Action for Two Inoperable Control Room Air Conditioning Subsystems to the  
Technical Specifications Using the Consolidated Line Item Improvement Process

In accordance with the provisions of 10 CFR 50.90 the Nuclear Management Company, LLC (NMC) is requesting an amendment to the Technical Specifications (TS) for the Monticello Nuclear Generating Plant (MNGP). The proposed amendment would revise the TS by adding an action statement for two inoperable Control Room air conditioning subsystems.

Enclosure 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications. Enclosure 2 provides the existing TS pages marked-up to show the proposed change. Enclosure 3 provides the retyped TS pages showing the proposed changes. Enclosure 4 provides draft TS Bases pages (for information) showing the associated bases changes in accordance with 10 CFR 50.36(a).

NMC requests approval of the proposed license amendment in accordance with the normal timeframe for processing Technical Specification Task Force (TSTF) Improved Standard TS travelers, with an implementation period of 90 days following issuance.

Summary of Commitments

This letter makes no new commitment or any changes to existing commitments.

In accordance with 10 CFR 50.91, a copy of this application, with enclosures, is being provided to the designated Minnesota Official.

I declare under penalty of perjury that the foregoing is true and correct.  
Executed on September 17, 2007.



Timothy J. O'Connor  
Site Vice President, Monticello Nuclear Generating Plant  
Nuclear Management Company, LLC

Enclosures (4)

cc: Administrator, Region III, USNRC  
Project Manager, Monticello, USNRC  
Resident Inspector, Monticello, USNRC  
Minnesota Department of Commerce

# ENCLOSURE 1

## DESCRIPTION OF CHANGE AND ASSESSMENT

### ADD ACTION FOR TWO INOPERABLE CONTROL ROOM AIR CONDITIONING SUBSYSTEMS TO THE TECHNICAL SPECIFICATIONS USING THE CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS

#### 1.0 DESCRIPTION

The proposed amendment would modify the Monticello Nuclear Generating Plant (MNGP) Technical Specifications (TS) by adding an Action Statement to the Limiting Condition for Operation (LCO) for Specification 3.7.5, "Control Room Ventilation System." Proposed Action B will allow a finite time (72 hours) to restore one Control Room ventilation subsystem to operable status, when both ventilation subsystems are inoperable, provided the Control Room temperature is verified to be less than 90°F once every 4 hours.

The proposed changes are consistent with the Nuclear Regulatory Commission (NRC) approved Technical Specification Task Force (TSTF) Improved Standard Technical Specifications Change Traveler, TSTF-477, Revision 3 (Reference 1). A notice of availability of this TS improvement was published in the *Federal Register* on March 26, 2007 (Reference 2), as part of the Consolidated Line Item Improvement Process (CLIIP).

#### 2.0 ASSESSMENT

##### 2.1 Applicability of TSTF-477 and Published Safety Evaluation

The Nuclear Management Company, LLC (NMC) has reviewed TSTF-477, Revision 3, and the NRC model safety evaluation previously published in the *Federal Register* on December 18, 2006 (Reference 3). NMC has concluded that the information in TSTF-477, as well as the safety evaluation prepared by the NRC staff are applicable to the MNGP and justify this amendment for the incorporation of the changes to the MNGP TS.

##### 2.2 Optional Changes and Variations

The NMC is not proposing any variations or deviations from the TS changes or TS Bases changes described in TSTF-477, Revision 3, or the NRC model safety evaluation dated December 18, 2006, with the exception of the control room air conditioning system / subsystem names.

TSTF-477, Revision 3, refers to the 'control room air conditioning (AC) system' and the 'control room AC subsystems'. The corresponding nomenclature at the MNGP are the 'control room ventilation system' and the 'control room ventilation subsystems' and this naming convention has been followed herein.

## ENCLOSURE 1

### 3.0 REGULATORY ANALYSIS

#### 3.1 No Significant Hazards Consideration Determination

The NMC has reviewed the proposed No Significant Hazards Consideration (NSHC) determination published in the *Federal Register* on December 18, 2006, as part of the CLIIP. The NMC has concluded that the proposed NSHC determination presented in this *Federal Register* notice is applicable to the MNGP and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

#### 3.2 Verification and Commitments

As discussed in the notice of availability published in the *Federal Register* on March 26, 2007, for this TS improvement, plant-specific verifications were performed as follows. TSTF-477, Revision 3, is applicable to all licensees of General Electric Boiling Water Reactors who have adopted or will adopt in conjunction with the change, the TS requirements for a TS bases control program consistent with the TS Bases Control Program described in Section 5.5 of the Standard Technical Specifications (STS). The MNGP is a BWR/3 with TS that do not currently provide an action other than entering LCO 3.0.3 for two inoperable Control Room ventilation subsystems. The NMC has reviewed TSTF-477, Revision 3, and the NRC model SE published in the *Federal Register* on December 18, 2006 and determined that the information and conclusions therein are applicable to the MNGP and justify incorporation of these proposed changes to the MNGP TS. The NMC has proposed TS Bases changes consistent with TSTF-477, Revision 3, which provide guidance and details on how to implement the new requirements. Finally, a bases control program is included in MNGP Specification 5.5.9, "Technical Specifications (TS) Bases Control Program," that is consistent with Section 5.5 of the STS.

### 4.0 ENVIRONMENTAL EVALUATION

The amendment changes requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment adopting TSTF-477, Revision 3, involves no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that TSTF-477, Revision 3, involves no significant hazards considerations, and there has been no public comment on the finding in *Federal Register* Notice 71 FR 75774. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

## ENCLOSURE 1

### 5.0 REFERENCES

1. Technical Specification Task Force, Improved Standard Technical Specifications Change Traveler, TSTF-477, Revision 3, "Add Action for Two Inoperable Control Room AC Subsystems."
2. Federal Register Notice, Nuclear Regulatory Commission, "Notice of Availability Concerning Technical Specification Improvement to Add an Action Statement for Two Inoperable Control Room Air Conditioning Subsystems to the Technical Specifications Using the Consolidated Line Item Improvement Process," published on March 26, 2007 (72 FR 14143).
3. Federal Register Notice, Nuclear Regulatory Commission, "Notice of Opportunity to Comment on Model Safety Evaluation and Model License Amendment Request on Technical Specification Improvement Regarding Adding an Action Statement for Two Inoperable Control Room Air Conditioning Subsystems," published on December 18, 2006 (71 FR 75774).

**ENCLOSURE 2**

**MONTICELLO NUCLEAR GENERATING PLANT**

**ADD AN ACTION FOR TWO INOPERABLE CONTROL ROOM  
AIR CONDITIONING SUBSYSTEMS TO THE TECHNICAL SPECIFICATIONS  
USING THE CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS**

**PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)**

(2 pages follow)

3.7 PLANT SYSTEMS

3.7.5 Control Room Ventilation System

LCO 3.7.5 Two control room ventilation subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,  
During movement of recently irradiated fuel assemblies in the secondary containment,  
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

| CONDITION   | REQUIRED ACTION  | COMPLETION TIME                  |
|---|--|----------------------------------|
| A. One control room ventilation subsystem inoperable.   | A.1 Restore control room ventilation subsystem to OPERABLE status.   | 30 days                          |
| B. Two control room ventilation subsystems inoperable.  | B.1 Verify control room area temperature < 90°F.<br><br><u>AND</u><br>B.2 Restore one control room ventilation subsystem to OPERABLE status. | Once per 4 hours<br><br>72 hours |
| BC. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.  | BC.1 Be in MODE 3.<br><br><u>AND</u><br>BC.2 Be in MODE 4.   | 12 hours<br><br>36 hours         |
| CD. Required Action and associated Completion Time of Condition A not met during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs. | -----NOTE-----<br>LCO 3.0.3 is not applicable.<br><br>CD.1 Place OPERABLE control room ventilation subsystem in operation.<br><br><u>OR</u>  | Immediately                      |

ACTIONS (continued)

| CONDITION  | REQUIRED ACTION   | COMPLETION TIME                       |
|--|---|---------------------------------------|
|  | <p>GD.2.1 Suspend movement of recently irradiated fuel assemblies in the secondary containment.</p> <p>AND</p> <p>GD.2.2 Initiate action to suspend OPDRVs.</p>   | <p>Immediately</p> <p>Immediately</p> |
| <p>D. Two control room ventilation subsystems inoperable in MODE 1, 2, or 3.</p>   | <p>D.1 Enter LCO 3.0.3.</p>   | <p>Immediately</p>                    |
| <p>E. Two control room ventilation subsystems inoperable Required Action and associated Completion Time of Condition B not met during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.</p> | <p>-----NOTE-----<br/>LCO 3.0.3 is not applicable.<br/>-----</p> <p>E.1 Suspend movement of recently irradiated fuel assemblies in the secondary containment.</p> <p>AND</p> <p>E.2 Initiate actions to suspend OPDRVs.</p> | <p>Immediately</p> <p>Immediately</p> |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE   | FREQUENCY        |
|--|------------------|
| <p>SR 3.7.5.1 Verify each control room ventilation subsystem has the capability to remove the assumed heat load.</p> | <p>24 months</p> |



**ENCLOSURE 3**

**MONTICELLO NUCLEAR GENERATING PLANT**

**ADD AN ACTION FOR TWO INOPERABLE CONTROL ROOM  
AIR CONDITIONING SUBSYSTEMS TO THE TECHNICAL SPECIFICATIONS  
USING THE CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS**

**PROPOSED RETYPED TECHNICAL SPECIFICATION CHANGES**

(2 pages follow)

3.7 PLANT SYSTEMS

3.7.5 Control Room Ventilation System

LCO 3.7.5 Two control room ventilation subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,  
During movement of recently irradiated fuel assemblies in the secondary containment,  
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

| CONDITION  | REQUIRED ACTION  | COMPLETION TIME  |
|--|--|------------------|
| A. One control room ventilation subsystem inoperable.  | A.1 Restore control room ventilation subsystem to OPERABLE status.                   | 30 days          |
| B. Two control room ventilation subsystems inoperable.   | B.1 Verify control room area temperature < 90°F.                                     | Once per 4 hours |
|  | <u>AND</u><br>B.2 Restore one control room ventilation subsystem to OPERABLE status. | 72 hours         |
| C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.  | C.1 Be in MODE 3.  | 12 hours         |
|  | <u>AND</u><br>C.2 Be in MODE 4.  | 36 hours         |
| D. Required Action and associated Completion Time of Condition A not met during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs. | -----NOTE-----<br>LCO 3.0.3 is not applicable.<br>-----                              |                  |
|  | D.1 Place OPERABLE control room ventilation subsystem in operation.                  | Immediately      |

ACTIONS (continued)

| CONDITION   | REQUIRED ACTION  | COMPLETION TIME                       |
|---|--|---------------------------------------|
|   | <p><u>OR</u></p> <p>D.2.1 Suspend movement of recently irradiated fuel assemblies in the secondary containment.</p> <p><u>AND</u></p> <p>D.2.2 Initiate action to suspend OPDRVs.</p>  | <p>Immediately</p> <p>Immediately</p> |
| <p>E. Required Action and associated Completion Time of Condition B not met during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.</p> | <p>-----NOTE-----<br/>LCO 3.0.3 is not applicable.<br/>-----</p> <p>E.1 Suspend movement of recently irradiated fuel assemblies in the secondary containment.</p> <p><u>AND</u></p> <p>E.2 Initiate actions to suspend OPDRVs.</p> | <p>Immediately</p> <p>Immediately</p> |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE   | FREQUENCY        |
|--|------------------|
| <p>SR 3.7.5.1 Verify each control room ventilation subsystem has the capability to remove the assumed heat load.</p> | <p>24 months</p> |

**ENCLOSURE 4**

**MONTICELLO NUCLEAR GENERATING PLANT**

**ADD AN ACTION FOR TWO INOPERABLE CONTROL ROOM  
AIR CONDITIONING SUBSYSTEMS TO THE TECHNICAL SPECIFICATIONS  
USING THE CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS**

**RETYPE DRAFT TECHNICAL SPECIFICATION BASES PAGES**

(4 pages follow)

## B 3.7 PLANT SYSTEMS

### B 3.7.5 Control Room Ventilation System

#### BASES

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**BACKGROUND** The Control Room Ventilation System provides temperature control for the control room boundary following isolation of the control room. The control room boundary includes the main control room and portions of the first and second floors of the Emergency Filtration Train (EFT) building.

The Control Room Ventilation System consists of two independent, redundant subsystems that provide cooling and heating of recirculated control room boundary and outside air. Each subsystem consists of heating coils (not required for OPERABILITY), cooling coils, fans, compressors, ductwork, dampers, and instrumentation and controls to provide for control room boundary temperature control.

The Control Room Ventilation System is designed to provide a controlled environment under both normal and accident conditions. A single subsystem provides the required temperature control to maintain a suitable control room boundary environment for a sustained occupancy of 10 persons. The system is designed to maintain the control room boundary at 78°F during the summer and 72°F in the winter. The maximum design condition in the control room and most of the EFT is 104°F. The Control Room Ventilation System operation in maintaining the control room boundary temperature is discussed in USAR, Section 6.7 (Ref. 1).

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**APPLICABLE SAFETY ANALYSES** The design basis of the Control Room Ventilation System is to maintain the control room boundary temperature for a 30 day continuous occupancy.

The Control Room Ventilation System components are arranged in redundant safety related subsystems. During emergency operation, the Control Room Ventilation System maintains a habitable environment and ensures the OPERABILITY of components in the control room boundary. A single failure of a component of the Control Room Ventilation System, assuming a loss of offsite power, does not impair the ability of the system to perform its design function. Redundant detectors and controls are provided for control room boundary temperature control. The Control Room Ventilation System is designed in accordance with Seismic Category I requirements. The Control Room Ventilation System is capable of removing sensible and latent heat loads from the control room boundary, including consideration of equipment heat loads and personnel occupancy requirements to ensure equipment OPERABILITY.

The Control Room Ventilation System satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii).

BASES

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LCO Two independent and redundant subsystems of the Control Room Ventilation System are required to be OPERABLE to ensure that at least one is available, assuming a single failure disables the other subsystem. Total system failure could result in the equipment operating temperature exceeding limits.

The Control Room Ventilation System is considered OPERABLE when the individual components necessary to maintain the control room boundary temperature are OPERABLE in both subsystems. These components include the cooling coils, fans, compressors, ductwork, dampers, and associated instrumentation and controls.

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APPLICABILITY In MODE 1, 2, or 3, the Control Room Ventilation System must be OPERABLE to ensure that the control room boundary temperature will not exceed equipment OPERABILITY limits following control room isolation.

In MODES 4 and 5, the probability and consequences of a Design Basis Accident are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining the Control Room Ventilation System OPERABLE is not required in MODE 4 or 5, except for the following situations under which significant radioactive releases can be postulated:

- a. During operations with a potential for draining the reactor vessel (OPDRVs); and
  - b. During movement of recently irradiated fuel assemblies in the secondary containment. Due to radioactive decay, the Control Room Ventilation System is only required to be OPERABLE during fuel handling involving recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 24 hours).
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ACTIONS

A.1

With one control room ventilation subsystem inoperable, the inoperable control room ventilation subsystem must be restored to OPERABLE status within 30 days. With the unit in this condition, the remaining OPERABLE control room ventilation subsystem is adequate to perform the control room boundary air conditioning function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in loss of the control room boundary air conditioning function. The 30 day Completion Time is based on the low probability of an event occurring requiring control room isolation, the consideration that the remaining subsystem can provide the required protection, and the availability of alternate safety and nonsafety cooling methods.

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BASES

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ACTIONS (continued)

B.1 and B.2

If both control room ventilation subsystems are inoperable, the Control Room Ventilation System may not be capable of performing its intended function. Therefore, the control room area temperature is required to be monitored to ensure that temperature is being maintained low enough that equipment in the control room is not adversely affected. With the control room temperature being maintained within the temperature limit, 72 hours is allowed to restore a control room ventilation subsystem to OPERABLE status. This Completion time is reasonable considering that the control room temperature is being maintained within limits and the low probability of an event occurring requiring control room isolation.

C.1 and C.2

In MODE 1, 2, or 3, if the inoperable control room ventilation subsystem(s) cannot be restored to OPERABLE status within the associated Completion Time, the unit must be placed in a MODE that minimizes risk. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

D.1, D.2.1, and D.2.2

The Required Actions of Condition D are modified by a Note indicating that LCO 3.0.3 does not apply. If moving recently irradiated fuel assemblies, although not feasible, while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of recently irradiated fuel assemblies is not sufficient reason to require a reactor shutdown.

During movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs, if Required Action A.1 cannot be completed within the required Completion Time, the OPERABLE control room ventilation subsystem may be placed immediately in operation. This action ensures that the remaining subsystem is OPERABLE, that no failures that would prevent actuation will occur, and that any active failure will be readily detected.

An alternative to Required Action D.1 is to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes risk.

BASES

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ACTIONS (continued)

If applicable, movement of recently irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, actions must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.

E.1 and E.2

The Required Actions of Condition E are modified by a Note indicating that LCO 3.0.3 does not apply. If moving recently irradiated fuel assemblies, although not feasible, while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of recently irradiated fuel assemblies is not a sufficient reason to require a reactor shutdown.

During movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs, if Required Actions B.1 and B.2 cannot be met within the required Completion Times, action must be taken to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes risk.

If applicable, handling of recently irradiated fuel in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, actions must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.

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SURVEILLANCE  
REQUIREMENTS

SR 3.7.5.1

This SR verifies that the heat removal capability of the system is sufficient to remove the control room boundary heat load assumed in the safety analyses. The SR consists of a combination of testing and calculation. The 24 month Frequency is appropriate since significant degradation of the Control Room Ventilation System is not expected over this time period.

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REFERENCES

1. USAR, Section 6.7.
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