October 23, 2003

L-MT-03-080
10 CFR Part 50
Section 50.90

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

MONTICELLO NUCLEAR GENERATING PLANT
DOCKET 50-263
LICENSE No. DPR-22

RESPONSE TO E-MAIL REQUEST FOR ADDITIONAL INFORMATION RELATED TO REVISED LONG-TERM CONTAINMENT RESPONSE AND NET-POSITIVE SUCTION HEAD ANALYSES (TAC NO. MB7185)

Reference 1: NMC Letter to NRC, "License Amendment Request, Dated December 6, 2002, Revised Analyses of Long-Term Containment Response and Overpressure Required for Adequate NPSH for Low Pressure ECCS Pumps"

Reference 2: NRC Letter to NMC, "Monticello Nuclear Generating Plant – Request for Additional Information Related to Revised Long-Term Containment Response and Net-Positive Suction Head Analyses," (TAC No. MB7185) dated August 19, 2003

Reference 3: NMC Letter to NRC, "Response to Request for Additional Information Related to Revised Long-Term Containment Response and Net-Positive Suction Head Analyses," (TAC No. MB7185) dated September 24, 2003

Reference 4: NRC e-Mail to NMC, "Subject: Re: Monticello: Revised Long-Term Containment," (TAC No. MB7185) October 8, 2003

Reference 1 requested approval of updates to the design basis loss of coolant accident containment response and overpressure assumed for adequate net positive suction head (NPSH) in the low pressure emergency core cooling system (ECCS) analyses. These analyses are described in the Monticello Nuclear Generating Plant (MNGP) Updated Safety Analysis Report. The NRC staff reviewed and requested additional information (RAI) on August 19, 2003 (Reference 2). Reference 3 provided the response to this RAI.

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Additional information was requested by the NRC via e-mail on October 8, 2003 (Reference 4). The requests from the October 8, 2003, e-mail RAI are provided below. Statements/questions are shown in 'bold' text and the NMC response is provided in 'standard' text immediately thereafter.

A July 25, 1997 letter from Northern States Power [NSP] describes several license conditions agreed to by NSP as part of its power uprate. One of these is to revise the EOPs [Emergency Operating Procedures] to require manual isolation of torus and drywell sprays prior to the point where primary containment pressure would not provide adequate NPSH [Net Positive Suction Head].

1. **Was this condition added to the license?**

   Yes. This condition was added to the MNGP Facility Operating License under Appendix C, "Additional Conditions," via Amendment Number 98. See enclosed page C-1 of the operating license.

2. **What amendment number (and date) removed this condition from the license if it was added?**

   Not applicable. This condition is included in the current operating license.

3. **If it was not added, why not?**

   Not applicable. This condition was added to the license.

4. **Is the required operator response still in the EOP?**

   Yes. The required operator response continues to be provided within the Emergency Operating Procedures (EOPs). The EOP flowchart for Operations Manual (OM) procedure C.5.1-1200, "Primary Containment Control," contains multiple branches, one for each parameter controlled. The applicable branches, 'DW [Drywell] Temperature,' and 'DW/Torus Pressure,' contain 'override' conditions for terminating drywell and torus sprays before the pressure reaches 0 psig in the Drywell or Torus. Caution statements warn against exceeding NPSH or vortex limits to avoid damaging pumps, and indicate that a Drywell pressure less than 7 psig may not provide adequate NPSH to prevent ECCS pump cavitation. NPSH pump curves of flow versus Torus temperature at various containment overpressures provides operator guidance to ensure NPSH limits are recognized for pump protection. Also, note that caution statements concerning maintaining adequate NPSH for ECCS pumps and other sources of water, and conditions under which this guidance may be deviated from, are found throughout the EOPs. The MNGP EOPs are consistent with the current guidance of the BWR Owners Group Emergency Procedure Guidelines.

This letter makes no new commitments. If you have any questions regarding this submittal, please contact Rick Loeffler, Senior Regulatory Affairs Engineer at (763) 295-1247.

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Nuclear Management Company, LLC

CC: Regional Administrator, Region III, USNRC
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Minnesota Department of Commerce

Enclosure

APPENDIX C

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. DPR-22

Nuclear Management Company, LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
98	The emergency operating procedures (EOPs) shall be changed to require manual isolation of torus and drywell sprays prior to the point where primary containment pressure would not provide adequate net positive suction head (NPSH) for the emergency core cooling system (ECCS) pumps, change the caution statement regarding NPSH in the Primary Containment Pressure EOP to include the core spray pumps, and add a caution statement regarding NPSH considerations for pressure control while venting to control primary containment pressure.	Prior to starting up from the current maintenance outage, or August 1, 1997, whichever is later.
98	Finalize the additional containment analysis and associated NPSH evaluation which extends the existing long-term cause evaluation to the time when the required containment overpressure returns to atmospheric conditions. Changes to the requested long-term containment overpressure, if any, shall be promptly reported to the NRC prior to starting up the unit from the current maintenance outage.	Prior to starting up from the current maintenance outage, or August 1, 1997, whichever is later.
98	Submit the results of the additional containment analysis and associated NPSH evaluation discussed above.	Within 90 days from the date of the plant startup from the current maintenance outage, or November 1, 1997, whichever is later.