

May 20, 2004

Mr. Thomas J. Palmisano
Site Vice President
Monticello Nuclear Generating Plant
Nuclear Management Company, LLC
2807 West County Road 75
Monticello, MN 55362-9637

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT — REVISED
ENVIRONMENTAL ASSESSMENT RE: PROPOSED LICENSE AMENDMENT
FOR REVISED ANALYSES OF LONG-TERM CONTAINMENT RESPONSE
AND NET POSITIVE SUCTION HEAD (TAC NO. MB7185)

Dear Mr. Palmisano:

Enclosed is a copy of the Revised Environmental Assessment (EA) and Finding of No Significant Impact related to your application for amendment dated December 6, 2002, as supplemented September 24, 2003, and March 12, 2004. This revised EA updates the existing EA of January 6, 2004, based on clarifying information in your letter of March 12, 2004. The proposed amendment revises the Monticello operating license to change the Monticello design bases and the Updated Safety Analysis Report.

The proposed amendment would change the existing analyses for the following:

- long-term containment response to the design-basis loss-of-coolant accident (LOCA).
- containment overpressure (the pressure above the initial containment pressure) required for adequate available net positive suction head (NPSH) for the low-pressure emergency core cooling system pumps following a LOCA, reactor vessel isolation, and Appendix R fire.

Nuclear Management Company performed long-term containment analyses assuming a service water temperature of 94 °F. The NPSH calculations assume a service water temperature of 90 °F. The lower service water temperature, 90 °F, would be operationally controlling. That is,

T. Palmisano

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exceeding a service water temperature of 90 °F would exceed the Monticello licensing basis since the NPSH calculations would no longer be valid.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

/RA/

L. Mark Padovan, Project Manager, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-263

Enclosure: Environmental Assessment

cc w/encls: See next page

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cc w/encls: See next page

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Monticello Nuclear Generating Plant

cc:

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October 2003

UNITED STATES NUCLEAR REGULATORY COMMISSION
NUCLEAR MANAGEMENT COMPANY, LLC
DOCKET NO. 50-263
MONTICELLO NUCLEAR GENERATING PLANT
REVISED ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an amendment to Facility Operating License No. DPR-22, issued to Nuclear Management Company, LLC (NMC), for operation of the Monticello Nuclear Generating Plant (Monticello), located in Wright County, Minnesota. Therefore, as required by 10 CFR 51.21, the NRC is issuing this revised environmental assessment and finding of no significant impact.

REVISED ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would revise the Monticello operating license to change the Monticello design bases and the Updated Safety Analysis Report (USAR). The proposed action would revise the existing analyses for the following:

- long-term containment response to the design-basis loss-of-coolant accident (LOCA).
- containment overpressure (the pressure above the initial containment pressure) required for adequate available net positive suction head (NPSH) for the low-pressure emergency core cooling system pumps following a LOCA, reactor vessel isolation, or Appendix R fire.

In addition, NMC intends to use these analyses to justify revising the service water temperature licensing basis. NMC administratively limits the service water temperature to

85 °F, instead of its current licensing basis value of 90 °F, because the results of analyses of a new scenario (reactor vessel isolation with high-pressure coolant injection unavailable) showed that the design temperature for the piping attached to the wetwell would be exceeded. A license amendment is required since NMC used different methods of evaluation in the updated containment analyses from those currently described in the Monticello USAR and previously approved by the NRC. NMC's submittal of December 6, 2002, demonstrates acceptable results for the long-term containment LOCA response with a service water temperature of 94 °F. The NPSH analyses were performed using a service water temperature of 90 °F. The lower service water temperature, 90 °F, would be operationally controlling. That is, exceeding a service water temperature of 90 °F would exceed the Monticello licensing basis since the NPSH calculations would no longer be valid.

The proposed action is in accordance with NMC's application of December 6, 2002, as supplemented September 24, 2003, and March 12, 2004.

The Need for the Proposed Action:

NMC needs this license amendment because it has determined, in accordance with 10 CFR 50.59(c)(2)(viii), that the updated containment analyses involve different evaluation methods from those currently described in Monticello's USAR and previously approved by the NRC.

Environmental Impacts of the Proposed Action:

The NRC staff reviewed NMC's amendment request and will issue a safety evaluation documenting its review. The NRC staff has reviewed NMC's calculation of the mass and energy releases that are used to determine containment pressure response, including the methods and key underlying input assumptions (e.g., decay heat generation).

NMC used conservative assumptions in its reanalyses which underestimate the containment pressure and overestimate the suppression pool water temperature. Some

overpressure is necessary to ensure sufficient available NPSH. The conservative assumptions used in NMC's calculations and the cautions in Monticello's emergency operating procedures are intended to ensure that this pressure will be available.

The NRC has completed its evaluation of the proposed action and concludes, as set forth below, that there are no significant environmental impacts associated with the proposed changes to the Monticello design basis and USAR. The details of the NRC staff's review of the amendment request will be provided in the related safety evaluation when it is issued by the NRC.

The proposed action will not significantly increase the probability or consequences of accidents, no changes are being made in the types or amounts of effluents that may be released off site, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential nonradiological impacts, the proposed action does not have a potential to affect any historic sites. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, there are no significant nonradiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

The action does not involve the use of any different resource than those previously considered in the Final Environmental Statement for Monticello dated November 1972.

Agencies and Persons Consulted:

On January 6, 2004, the staff consulted with the Minnesota State official, Nancy Campbell of the Department of Commerce, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see NMC's letter of December 6, 2002, as supplemented September 24, 2003, and March 12, 2004. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in

ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209 or 301-415-4737, or by e-mail to pdr@nrc.gov.

Dated at Rockville, Maryland, this 20th day of May 2004.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

L. Raghavan, Chief, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation