

January 12, 2006

Mr. John T. Conway
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 - ISSUANCE OF AMENDMENT
RE: SURVEILLANCE TEST INTERVALS FOR VARIOUS INSTRUMENTS
(TAC NOS. MC3692 AND MC8972)

Dear Mr. Conway:

The Commission has issued the enclosed Amendment No. 144 to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. The Nuclear Regulatory commission staff had issued Amendment No. 143 on September 30, 2005, in response to the application dated June 30, 2004, and supplements. The balance of the proposed changes, those concerning shortening surveillance test intervals for various instruments, are addressed by the current amendment.

The amendment revised Table 4.2.1, "Minimum Test and Calibration Frequency for Core Cooling, Rod Block and Isolation Instrumentation," of the Technical Specifications to shorten the test interval between surveillance tests for the scram discharge volume high level rod block, and the safety/relief valve low-low set logic inhibit timer.

A copy of our related safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Peter S. Tam, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-263

Enclosures: 1. Amendment No. 144 to DPR-22
2. Safety Evaluation

cc w/encls: See next page

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NUCLEAR MANAGEMENT COMPANY, LLC

DOCKET NO. 50-263

MONTICELLO NUCLEAR GENERATING PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 144
License No. DPR-22

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Nuclear Management Company, LLC (the licensee), dated June 30, 2004, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2 of Facility Operating License No. DPR-22 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 144, are hereby incorporated in the license. NMC shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Timothy J. Kobetz, Acting Chief
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: January 12, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 144

FACILITY OPERATING LICENSE NO. DPR-22

DOCKET NO. 50-263

Replace the following pages of Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

61
63

INSERT

61
63

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 144 TO FACILITY OPERATING LICENSE NO. DPR-22
NUCLEAR MANAGEMENT COMPANY, LLC
MONTICELLO NUCLEAR GENERATING PLANT
DOCKET NO. 50-263

1.0 INTRODUCTION

By letter to the Nuclear Regulatory Commission (NRC, the Commission) dated June 30, 2004 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML042040159), as supplemented by letters dated September 16, (ADAMS Accession No. ML042600576), and November 5, 2004 (ADAMS Accession No. ML043150428), March 3, (ADAMS Accession No. ML050670432), July 1 (ADAMS Accession No. ML051890051) and September 27, 2005 (ADAMS Accession No. ML052760170), the Nuclear Management Company, LLC (the licensee), requested changes to the Technical Specifications (TSs) for the Monticello Nuclear Generating Plant (Monticello). The proposed amendment would change the TSs to support an increase in the length of the fuel cycle from 18 to 24 months at Monticello. The licensee used the guidance in Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-month Fuel Cycle," dated April 2, 1991, in the development of the proposed changes to the TSs. In response to the licensee's application, the NRC staff issued Amendment No. 143 (ADAMS Accession No. ML052700252) on September 30, 2005. Amendment No. 143 did not address the licensee's requested changes regarding shortening the surveillance test intervals for various instruments; these proposed changes are only present in the June 30, 2004, original application. These changes are evaluated this safety evaluation (SE).

As stated in the SE supporting Amendment No. 143, the supplements dated September 16, and November 5, 2004, March 3, July 1, and September 27, 2005, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on January 18, 2005 (70 FR 2892). Furthermore, these supplements do not pertain to the amendment supported by this SE because all information pertinent to the surveillance test intervals for various instruments was conveyed solely in the June 30, 2004, application.

2.0 REGULATORY EVALUATION

The regulatory evaluation is identical to that in the September 30, 2005, SE supporting Amendment No. 143, which is reproduced below in *italics*:

NRC issued GL 91-04 to give licensees generic guidance on preparing license amendment requests that change the TS surveillance intervals to accommodate a 24-month fuel cycle. In accordance with GL 91-04, the licensee must provide the following information to justify increasing the calibration intervals for instruments used to perform safety functions:

- (1) Confirm that instrument drift as determined by as-found and as-left calibration data from surveillance and maintenance records have not, except on rare occasions, exceeded acceptable limits for a calibration interval.*
- (2) Confirm that the values of drift for each instrument type (make, model, and range) and application have been determined with a high probability, and a high degree of confidence. Provide a summary of the methodology and assumptions used to determine the rate of instrument drift with time based upon historical plant calibration data.*
- (3) Confirm that the magnitude of instrument drift has been determined with a high probability and a high degree of confidence for a bounding calibration interval of 30 months for each instrument type (make, model number, and range) and application that performs a safety function. Provide a list of the channels by TS section that identifies these instrument applications.*
- (4) Confirm that a comparison of the projected instrument drift errors has been made with the values of drift used in the setpoint analysis. If this results in revised setpoints to accommodate large drift errors, provide proposed TS changes to update trip setpoints. If the drift errors result in a revised safety analysis to support existing setpoints, provide a summary of the updated analysis conclusions to confirm that safety limits and safety analysis assumptions are not exceeded.*
- (5) Confirm that the projected instrument errors caused by drift are acceptable for control of plant parameters to effect a safe shutdown with the associated instrumentation.*
- (6) Confirm that all conditions and assumptions of the setpoint and safety analyses have been checked and are appropriately reflected in the acceptance criteria of plant surveillance procedures for channel checks, channel functional tests, and channel calibrations.*
- (7) Provide a summary description of the program for monitoring and assessing the effects of increased calibration surveillance intervals on instrument drift and their effects on safety.*

The NRC staff used the guidance in the GL 91-04 for evaluating the acceptability of the proposed changes to the surveillance test intervals.

3.0 TECHNICAL EVALUATION

Amendment No. 143 had previously addressed the TS changes proposed by the licensee, except two changes in Table 4.2.1, "Minimum Test and Calibration Frequency for Core Cooling, Rod Block and Isolation Instrumentation." Those changes are evaluated in the following subsections.

3.1 Table 4.2.1 - Rod Blocks, Function 9

This surveillance corresponds to TS Table 3.2.3, "Instrumentation That Initiates Rod Block," Function 5, "Scram Discharge Volume." The licensee proposed to revise the surveillance interval of the water level switches from the current "Once/Refueling Outage [i.e., approximately 18 months]" to "Once/3 months" for Function 9, Scram Discharge Volume - High Level. The licensee's application describes this function as follows:

The circuitry is arranged to initiate a rod block that prevents rod withdrawal regardless of the position of the mode switch for scram discharge volume high water level. This assures that no control rod is withdrawn unless enough capacity is available in either scram discharge volume to accommodate a scram. The east scram discharge volume receives the water displaced by the motion of the east control rod drive pistons and the west scram discharge volume received the water displaced by the motion of the west control rod drive pistons during a scram. Should either scram discharge volume fill up with water to the point where not enough space remains for the water displaced during a scram, control rod movement would be hindered in the event a scram was required. The reactor is scrammed to prevent the situation when the water level in either discharge volume attains a value high enough to verify that the volume is filling up yet low enough to ensure that the remaining capacity in the volume can accommodate a scram.

The licensee stated that although the current TS requires surveillance testing of the level switches at a minimum frequency of every refueling outage, the licensee had been performing the surveillance test on a quarterly basis for numerous years. The licensee's operating experience shows these components to routinely pass the surveillance test when performed at the 3-month interval. The licensee stated that statistical data and surveillance test history do not currently support an extension of this frequency.

The NRC staff agrees that increasing the surveillance frequency from once per refueling outage to once per 3 months reflects the licensee's long-existing practice, and is going in a conservative direction. There is no equipment modification associated with this change in surveillance frequency, and the effect of such increased surveillance frequency is minimal on system availability. Accordingly, the NRC staff finds the proposed change acceptable.

3.2 Table 4.2.1 - Safety/Relief Valve Low-Low Set Logic, Function 5

This surveillance corresponds to TS Table 3.2.7, "Instrumentation for Safety/Relief Valve Low-Low Set Logic." The licensee proposed to revise the surveillance interval of the inhibit timer from the current "Once/Operating Cycle [i.e., approximately 18 months]" to "Once/3 months" for Function 5, Inhibit Timer.

The licensee explained that once a low-low set safety/relief valve has opened and closed, a time delay relay prevents the plant operators or the low-low set logic from immediately re-opening the valve. This delay allows the water leg in the safety/relief valve line to recede. Although the current TS requirement specifies testing of the inhibit timer a minimum of once operating cycle, the licensee had performed this test on a quarterly basis for many years.

The licensee had performed an evaluation of the surveillance interval reduction for the timer based upon the recommendations of Electrical Power Research Institute Topical Report 103335. The licensee's operating experience shows the timer and associated components routinely pass the surveillance test when performed at the 3-month interval. The licensee stated that statistical data and surveillance test history do not currently support an extension of this frequency.

The NRC staff agrees that increasing the surveillance frequency from once per refueling outage to once per 3 months reflects the licensee's long-existing practice, and is going in a conservative direction. There is no equipment modification associated with this change in surveillance frequency, and the effect of such increased surveillance frequency is minimal on system availability. Accordingly, the NRC staff finds the proposed change acceptable.

3.3 Summary of Review

In the SE supporting Amendment No. 143, the NRC staff had concluded that changes proposed by the licensee in application dated June 30, 2004, as supplemented by letters dated November 5, 2004, and March 3, July 1, and September 27, 2005, were in conformance with guidance in the GL 91-04. The balance of the proposed changes, those regarding reducing the time interval between surveillance tests (i.e., increasing frequency) for two components, had been delineated above in Sections 3.1 and 3.2.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Minnesota State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the use of facility components located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment 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 the amendment involves no significant hazards consideration and there has been no public comment on such finding (70 FR 2892). 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.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: P. Tam

Date: January 12, 2006

Monticello Nuclear Generating Plant

cc:

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