

July 5, 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 (MNGP) - ISSUANCE OF  
AMENDMENT RE: ALLOWABLE VALUES OF DEGRADED VOLTAGE  
(TAC NO. MD1267)

Dear Mr. Conway:

The Commission has issued the enclosed Amendment No. 147 to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant (MNGP), in response to your application dated June 29, 2005, as supplemented on April 25, 2006. Both these submittals are concerned with conversion of the MNGP Technical Specifications (TS) from its custom format to the Improved TS (ITS) format. On June 5, 2006, the ITS amendment was issued with the subject issue left as an unresolved item.

The amendment revised Table 3.3.8.1-1, "Loss of Power Instrumentation," changing the allowable values for the 4.16-kV essential bus degraded voltage from a range of 3897-3933 volts to a range of 3913-3927 volts.

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. 147 to DPR-22
2. Safety Evaluation

cc w/encls: See next page

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\*Safety evaluation transmitted by memo on the date indicated.

NUCLEAR MANAGEMENT COMPANY, LLC

DOCKET NO. 50-263

MONTICELLO NUCLEAR GENERATING PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 147  
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 29, 2005, as supplemented on April 25, 2006, 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. 147, 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 concurrently with implementation of the Improved Technical Specifications (Amendment No. 146, dated June 5, 2006).

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

L. Raghavan, Chief  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Facility Operating License  
and Technical Specifications

Date of Issuance: July 5, 2006

ATTACHMENT TO OPERATING LICENSE AMENDMENT NO. 147

FACILITY OPERATING LICENSE NO. DPR-22

DOCKET NO. 50-263

Replace the following page of Facility Operating License DPR-22 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

REMOVE

3

INSERT

3

Replace the following page of Appendix A (Technical Specifications) with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

REMOVE

3.3.8.1-3

INSERT

3.3.8.1-3

4. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, NMC to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
  5. Pursuant to the Act and 10 CFR Parts 30 and 70, NMC to possess, but not separate, such byproduct and special nuclear material as may be produced by operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission, now or hereafter in effect, and is subject to the additional conditions specified or incorporated below:
1. Maximum Power Level  
  
NMC is authorized to operate the facility at steady state reactor core power levels not in excess of 1775 megawatts (thermal).
  2. Technical Specifications  
  
The Technical Specifications contained in Appendix A, as revised through Amendment No. 147, are hereby incorporated in the license. NMC shall operate the facility in accordance with the Technical Specifications.
  3. Physical Protection  
  
NMC shall implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Monticello Nuclear Generating Plant Physical Security Plan", with revisions submitted through November 30, 1987; "Monticello Nuclear Generating Plant Guard Training and Qualification Plan," with revisions submitted through February 26, 1986; and "Monticello Nuclear Generating Plant Safeguards Contingency Plan," with revisions submitted through August 20, 1980. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 147 TO FACILITY OPERATING LICENSE NO. DPR-22

NUCLEAR MANAGEMENT COMPANY, LLC

MONTICELLO NUCLEAR GENERATING PLANT (MNGP)

DOCKET NO. 50-263

1.0 INTRODUCTION

By letter dated June 29, 2005 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML051960175), as supplemented by letter dated April 25, 2006 (Accession No. ML061180108), Nuclear Management Company, LLC (the licensee) submitted an application for amendment. Both these submittals are concerned with conversion of the MNGP Technical Specifications (TS) from its custom format to the Improved TS (ITS) format. On June 5, 2006, the MNGP ITS was issued as Amendment No. 146 with two unresolved issues. This safety evaluation is concerned with one of the unresolved issues regarding Table 3.3.8.1-1, "Loss of Power Instrumentation." Specifically, the licensee proposed to change the allowable value for the 4.16 kV essential bus degraded voltage from " $3915 \pm 18$  V" (i.e., 3897 V and 3933 V, in Table 3.2.6 of the custom TS) to "3913 V and 3927 V" (in Table 3.3.8.1-1 of the ITS).

The additional information provided in the supplemental letter dated April 25, 2006, did not expand the scope of the application as noticed and does not change the NRC staff's original notice published in the *Federal Register* on November 23, 2005 (70 FR 70889). The subject issue was identified as Beyond Scope Issue (BSI) 9 in that notice.

2.0 REGULATORY EVALUATION

As explained in the above section, this amendment is really a supplement to Amendment No. 146 (Accession No. ML061070577). On such basis, Section 3 of the safety evaluation, "Regulatory Evaluation," supporting Amendment No. 146 is applicable and is adopted in its entirety by reference.

3.0 TECHNICAL EVALUATION

In the referenced April 25, 2005, submittal, the licensee stated that:

As a result of modifications to Instrument Setpoint Calculation for the 4.16 KV Degraded Voltage channels, the OPERABILITY limit (Allowable Value) must be changed. The changes to the Degraded Voltage Allowable Values (Attachment 1 [of the June 29, 2005, submittal], Volume 8, Rev. 0, Pages 693 and 697 of 760) are provided in the attachment to this response. The

previously submitted Allowable Values of greater than or equal to 3909 V and less than or equal to 3921 V have been changed to greater than or equal to 3913 V and less than or equal to 3927 V. The major contributor to the changes is the result of a re-characterization of the primary element accuracy associated with the potential transformer. The revised calculation (CA-92-220 Rev. 1) has also been provided in the attachment to this response.

The licensee proposed allowable values of degraded voltage (Table 3.3.8.1-1) to be 3913 V and 3927 V, with a time decay of 8.8 second and 9.2 second. The allowable degraded values are based on the "Instrument Setpoint Calculation for 4.16 kV Degraded Voltage."

The TS as issued under Amendment No. 146 preserved the custom TS range of  $3915 \pm 18$  V (i.e.,  $94.11 \pm 0.43$  percent) with a time decay of  $9.0 \pm 1.0$  second. According to the licensee's "Instrument Setpoint Calculation for 4.16 kV Degraded Voltage," the proposed new allowable values of degraded voltage (3913 V and 3927 V) remain within the analytic limits of 3897 V and 3933 V. Also, the proposed time settings remain within the analytic limits of 8.0 second and 9.0 second based on the previous custom TS degraded time setting of  $9.0 \pm 1.0$  second. The licensee's analytic limits are based on alternating current electrical load study.

The NRC staff finds that the proposed voltage range is bounded by the previous voltage range, and the time delay is bounded by the previous time delay allowance. Accordingly, the NRC staff finds the proposed allowable values of the Degraded Voltage Function (undervoltage and time delay) acceptable.

#### 4.0 STATE CONSULTATION

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

#### 5.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact was published in the *Federal Register* on June 5, 2006 (71 FR 32376), for the proposed conversion of the custom MNGP TS to ITS. Amendment No. 147, which is supported by this safety evaluation, is a supplement to Amendment No. 146 which converted the custom TS to ITS. Accordingly, the Commission has determined that issuance of this amendment will not result in any significant environmental impacts beyond those evaluated in the Final Environmental Statement for MNGP dated November 1974.

#### 6.0 CONCLUSION

The Commission has also 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: V. Goel

Dated: July 5, 2006



Monticello Nuclear Generating Plant

cc:

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