

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-263

MONTICELLO NUCLEAR GENERATING PLANT, UNIT NO. 1

RENEWED FACILITY OPERATING LICENSE

License No. DPR-22

1. The Nuclear Regulatory Commission (NRC or the Commission), having previously made the findings set forth in License No. DPR-22 issued on January 9, 1981, has now found that:
 - A. The application to renew operating License No. DPR-22 filed by Nuclear Management Company, LLC* (NMC) 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, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Monticello Nuclear Generating Plant, Unit No. 1 (the facility), has been completed in conformity with Construction Permit No. CPPR-31 and the application, the provisions of the Act, and the regulations of the Commission;
 - C. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations;
 - D. The facility will operate in conformity with the application, the provisions of the Act, and regulations of the Commission;
 - E. There is reasonable assurance: (i) that the activities authorized by this renewed operating license 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 set forth in 10 CFR Chapter I;

*NMC is maintained as historical information.

- F. Northern States Power Company (NSPM) is technically and financially qualified to engage in the activities authorized by this renewed operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - G. NSPM has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - H. The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - I. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this renewed Facility Operating License No. DPR-22, subject to the conditions for protection of the environment set forth herein, is in accordance with 10 CFR Part 51 (formerly Appendix D to Part 50), of the Commission's regulations and all applicable requirements have been satisfied; and
 - J. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this renewed operating license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70.
2. The Facility Operating License No. DPR-22 dated January 9, 1981, is superseded by Renewed Facility Operating License No. DPR-22, hereby issued to NSPM¹ to read as follows:
- A. This renewed operating license applies to the Monticello Nuclear Generating Plant, Unit No. 1, a single cycle, forced circulation, boiling water nuclear reactor and electric generating equipment (the facility). The facility is located in Wright County on the Northern States' site in Wright and Sherburne Counties, Minnesota, and is described in the "Final Safety Analysis Report," as supplemented and amended (Amendment Nos. 9 through 28) and in its Environmental Report, as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - 1. Pursuant to Section 104(b) of the Act, and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," NSPM to possess, use, and operate the facility as a utilization facility at the designated location in Wright County, Minnesota, in accordance with the procedures and limitation set forth in this license;

¹ Northern States Power Company was incorporated in Minnesota as a wholly owned subsidiary of Xcel Energy, Inc. effective August 18, 2000. This license, as amended, was amended effective this date to reflect the Commission's consent per 10 CFR Part 50, Section 50.80 to the license transfer approved by Order dated May 12, 2000.

2. Pursuant to the Act and 10 CFR Part 70, NSPM to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operations, as described in the Final Safety Analysis Report, as supplemented and amended, and the licensee's filings dated August 16, 1974 (those portions dealing with handling of reactor fuel) and August 17, 1977 (those portions dealing with fuel assembly storage capacity);
 3. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, NSPM to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 4. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, NSPM 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, NSPM to possess, but not separate, such byproduct and special nuclear material as may be produced by operation of the facility.
- C. This renewed operating 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
NSPM 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. 156, are hereby incorporated in the license. NSPM shall operate the facility in accordance with the Technical Specifications.
 3. Physical Protection
NSPM 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)(2). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Monticello Nuclear Generating Plant Physical Security, Training and Qualification, and Safeguards Contingency Plan," with revisions submitted through May 12, 2006.

4. Fire Protection

NSPM shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Safety Analysis Report for the facility and as approved in the SER dated August 29, 1979, and supplements dated February 12, 1981 and October 2, 1985, subject to the following provision:

NSPM may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

5. Emergency Preparedness Plan

NSPM shall follow and maintain in effect emergency plans which meet the standards of 10 CFR 50.47(b) and the requirements in 10 CFR 50, Appendix E, including amendments and changes made pursuant to the authority of 10 CFR 50.54(q). The licensee shall meet the requirements of 10 CFR 50.54(s), 50.54(t), and 50.54(u).

6. TMI Action Plan

NSPM has satisfactorily met all TMI-2 Lessons Learned Category "A" requirements applicable to the facility. NSPM shall make a timely submittal in response to the letter dated October 31, 1980 regarding post-TMI requirements from Darrell G. Eisenhut, Director, Division of Licensing, Office of Nuclear Reactor Regulation to All Licensees of Operating Plants and Applicants for Operating Licenses and Holders of Construction Permits (NUREG-0737).

7. Repairs to the Recirculation System Piping

The repairs to the recirculation system piping are approved and the unit is hereby authorized to return to power operation, subject to the following condition:

Prior to the startup of Cycle 11, NSPM shall submit by August 1, 1983 for the Commission's review and approval, a program for inspection and/or modification of the recirculation system piping.

8. Additional Conditions

The Additional Conditions contained in Appendix C, as revised through Amendment No. 110, are hereby incorporated into this license. NSPM shall operate the facility in accordance with the Additional Conditions.

9. Implementation of New and Revised Surveillance Requirements

For surveillance requirements that are new in Amendment No. 146, the first performance is due at the end of the first surveillance interval, which begins on the date of implementation of this amendment.

For surveillance requirements that existed prior to Amendment No. 146, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of this amendment.

For surveillance requirements that existed prior to amendment No. 146 that have modified acceptance criteria, the first performance is due at the end of the first surveillance interval that began on the date the surveillance was last performed prior to the implementation of this amendment.

For surveillance requirements that existed prior to Amendment No. 146, whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to implementation of this amendment.

10. Removed Details and Requirements Relocated to Other Controlled Documents

License Amendment No. 146 authorizes the relocation of certain technical specifications to other licensee-controlled documents. Implementation of this amendment shall include relocation of these requirements to the specified documents, as described in (1) Section 5.0 of the NRC staff's Safety Evaluation, and (2) Table LA, Removed Detail Changes, and Table R, Relocated Specifications, attached to the NRC staff's Safety Evaluation.

11. Mitigation Strategy License Condition

Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (a) Fire fighting response strategy with the following elements:
 - 1. Pre-defined coordinated fire response strategy and guidance
 - 2. Assessment of mutual aid fire fighting assets

3. Designated staging areas for equipment and materials
 4. Command and control
 5. Training of response personnel
- (b) Operations to mitigate fuel damage considering the following:
1. Protection and use of personnel assets
 2. Communications
 3. Minimizing fire spread
 4. Procedures for implementing integrated fire response strategy
 5. Identification of readily-available pre-staged equipment
 6. Training on integrated fire response strategy
 7. Spent fuel pool mitigation measures
- (c) Actions to minimize release to include consideration of:
1. Water spray scrubbing
 2. Dose to onsite responders
12. The licensee shall implement and maintain all Actions required by Attachment 2 to NRC Order EA-06-137, issued June 20, 2006, except the last action that requires incorporation of the strategies into the site security plan, contingency plan, emergency plan and/or guard training and qualification plan, as appropriate.
- D. NSPM shall immediately notify the NRC of any accident at this facility which could result in an unplanned release of quantities of fission products in excess of allowable limits for normal operation established by the Commission.
- E. NSPM shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.
- F. NSPM shall observe such standards and requirements for the protection of the environment as are validly imposed pursuant to authority established under Federal and State law and as determined by the Commission to be applicable to the facility covered by this renewed facility operating license.
- G. The Updated Safety Analysis Report supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the Updated Safety Analysis Report required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, NSPM may make changes to the programs and activities described in the supplement without prior Commission approval, provided that NSPM evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.
- H. The Updated Safety Analysis Report supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. NSPM shall complete these activities no later than September 8, 2010, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

- I. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of the most recent NRC-approved version of the Boiling Water Reactor Vessels and Internals Project (BWRVIP) Integrated Surveillance Program (ISP) appropriate for the configuration of the specimens in the capsule. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.
- J. This renewed operating license is effective as of the date of issuance and shall expire at midnight, September 8, 2030.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachments: 1. Appendix A - Technical Specifications
2. Appendix B - (Deleted per Amendment 15, 12/17/82)
3. Appendix C - Additional Conditions

Date of Issuance: November 08, 2006