APPENDIX B

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STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

LARGE ELECTRIC POWER GENERATING PLANT

SITE PERMIT

FOR

MONTICELLO NUCLEAR GENERATING PLANT

IN

WRIGHT COUNTY, MINNESOTA

ISSUED TO

XCEL ENERGY

PUC DOCKET NO. E-002/GS-07-1567

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7849.5010 - .6500, this Site Permit is hereby issued to:

XCEL ENERGY

Xcel Energy is authorized by this permit to construct and operate an Extended Power Uprate capable of producing an additional 71 megawatts (MW) on the site of the Monticello Nuclear Generating Plant in Wright County, Minnesota, identified in this Permit and in compliance with the conditions specified in this Permit.

Approved and adopted this 23rd day of December, 2008
BY ORDER OF THE COMMISSION

Mark E. Oberlander for

Burl W. Haar,
Executive Secretary

This document can be made available in alternative formats; i.e. large print or audio tape by calling (651) 201-2202 (Voice) or 1-800-627-3529 (TTY relay service).

I. SITE PERMIT

The Minnesota Public Utilities Commission ("Commission") hereby issues this Site Permit to Xcel Energy, pursuant to Minnesota Statute Chapter 216E and Minnesota Rules Chapter 7849, to construct the Extended Power Uprate (EPU), capable of producing an additional 71 megawatts (MW), at the Monticello Nuclear Generating Plant (MNGP) in Wright County, Minnesota.

II. PROJECT DESCRIPTION

The MNGP utilizes a boiling water reactor (BWR). In a boiling water reactor, a nuclear reaction in the reactor core generates heat, which boils water to produce steam inside the reactor vessel, which in turn is directed to turbine generators to produce electrical power. The steam is cooled in a condenser and returned to the reactor vessel to be boiled again. The cooling water is force-circulated by electrically-powered feedwater pumps. Emergency cooling water is supplied by other pumps, which can be powered by onsite diesel generators.

The plant is located on the western bank of the Mississippi River in Wright County, approximately 50 miles northwest of Minneapolis. The MNGP is owned and operated by Northern States Power Company, a Minnesota corporation ("Xcel Energy" or "Company"). The MNGP had been operated by Nuclear Management Company, LLC ("NMC"), under contract with Xcel Energy, but the functions of NMC have been reintegrated into Xcel Energy.

Xcel Energy proposes to uprate the electrical generating capacity of MNGP from 585 megawatts electric to 656 megawatts electric (MWe). The 71 MWe EPU will be achieved by increasing the steam output of the nuclear reactor and capturing this additional output with improved electrical generation equipment and systems. Steam output will be increased through an increase in the number of new fuel assemblies replaced in the reactor core at each refueling. Equipment and systems modifications include:

- Replacement of the high pressure turbine;
- Modification of the low pressure turbine;
- Replacement of condensate pumps, motors, and demineralizers;
- Upgrades of electrical power supplies and power cooling systems.

The modifications to the plant necessary for the EPU will occur in two phases during routine refueling outages at the plant in 2009 and 2011. All modifications, except for limited power supply upgrades, will occur within the current physical footprint of MNGP. No new structures are proposed. Operation at the increased power level following the 2009 refueling outage will occur following receipt of the operating license amendment approving reactor operations at the increased power level from the Nuclear Regulatory Commission ("NRC"). Approval from the NRC is expected in early 2010.

III. DESIGNATED SITE

The MNGP site itself consists of approximately 2,150 acres with roughly two miles of frontage on the north and south banks of the Mississippi River in Wright and Sherburne Counties. Most of the site is located on the southern side of the Mississippi River, with approximately 450 acres on the northern side. Approximately 50 acres are occupied by the plant and its supporting

facilities. The remaining acres are undeveloped, with approximately 174 acres leased by local farmers for growing row crops and 144 acres under lease for recreational use.

The project location and site layout are shown in **Attachment 1**. The site is more specifically described in the Site Permit Application and in the Environmental Assessment.

IV. PERMIT CONDITIONS

The following conditions shall apply to the construction of the facility.

A. **Contact Information.** At least fourteen (14) days prior to the start of each of the 2009 and 2011 refueling outages, the Permittee shall advise the Commission in writing of the person or persons designated as the contact representative for the Permittee. This person's address, phone number, and emergency phone number shall be provided to the Commission, who may make the information available to local residents, public officials and other interested persons. The Permittee may change its field representative at any time upon written notice to the Commission.

B. **Increased Power Level.** Within 30 days of achieving operations at the increased EPU power levels (an increase is anticipated in late 2009 or early 2010 following NRC approval of the Monticello EPU, and another increase is anticipated following completion of the refueling outage in 2011), the Permittee shall notify the Commission in writing of the increased power level achieved and address any issues affecting the ability of the plant to achieve its anticipated power output as a result of the uprate.

C. **Work Completion.** Within 120 days of the plant's return to service following the 2009 and 2011 refueling outages, the Permittee shall notify the Commission in writing of the completion of the EPU work performed during the outage. The communication shall address the main modifications as outlined below and whether any significant issues were encountered with the implementation of each.

- Modification of the low pressure turbine sections (2009)
- Replacement of the high pressure turbine section (2009)
- Condensate demineralizer replacement (2011)
- Upgrades to isophase bus duct cooling system (2009)
- Replacement of condensate pumps and motors (2011)
- Upgrade of offsite power supplies to power larger plant loads (2011)
- Replacement, or modification, of the steam dryer (2011)
- Rewind of the main generator stator (2011)
- Replacement of feedwater pumps and motors (2011)
- Feedwater heater drain cooler capacity (2011)

D. **Other Requirements.** The Permittee shall comply with all applicable state rules and statutes. The Permittee shall obtain all required permits, or permit amendments required for the project and comply with the conditions of these permits.

E. **Delay in Construction.** If the Permittee has not commenced construction or improvement of the project within four (4) years from the date of issuance of this Permit, the Commission shall consider suspension of the Permit in accordance with Minn. Rule 7849.5970.

V. PERMIT AMENDMENT

This permit may be amended by the Commission. Any person may request an amendment of this permit pursuant to Minn. Rule 7849.5990 by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment. The Commission will mail notice of receipt of the request to the Permittee. The Commission may amend the permit after affording the Permittee and interested persons such process as is required.

VI. TRANSFER OF PERMIT

The Permittee may request that the Commission transfer this permit to another person or entity pursuant to Minn. Rule 7849.6000. The Permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer. The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require in determining whether the new permittee can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the Permittee, the new permittee, and interested persons such process as is required.

VII. REVOCATION OR SUSPENSION OF THE PERMIT

The Commission may initiate action to suspend or revoke this permit at any time. Grounds for suspension or revocation include:

1) A false statement was knowingly made in the application or in accompanying statements or studies required of the applicant, and a true statement would have warranted a change in the Commission's findings;

2) There has been a failure to comply with material conditions of this permit, or there has been a failure to maintain health and safety standards; or

3) There has been a material violation of a provision of an applicable statute or rule or an order of the Commission.

In the event the Commission shall determine that it is appropriate to consider suspension or revocation of this permit, it shall act in accordance with all applicable statutes and rules, including Minnesota Statutes Section 216E.14. The Commission may require the Permittee to undertake corrective measures in lieu of suspending or revoking this permit pursuant to Minn. Rule 7849.6010.

VIII. PERMIT COMPLIANCE

Failure to timely and properly make compliance filings required by this permit is a failure to comply with the conditions of this permit. Compliance filings must be eFiled through the Department of Commerce eDocket system in accordance with the Commission procedure for compliance filings attached to this permit (**Attachment 2**).

For ease of use, a compilation of compliance filings required under this permit is attached (**Attachment 3**).

IX. RIGHT OF ENTRY

The Permittee shall allow Commission designated representatives to perform the following, upon reasonable notice, upon presentation of credentials and at all times in compliance with the Permittee's site safety and security standards:

1) To enter upon the facilities easement of the property for the purpose of obtaining information, examining records, and conducting surveys or investigations;

2) To bring such equipment upon the facilities easement of the property as is necessary to conduct such surveys and investigations;

3) To sample and monitor upon the facilities easement of the property; and

4) To examine and copy any documents pertaining to compliance with the conditions of this Permit.

X. COMPLAINT PROCEDURE

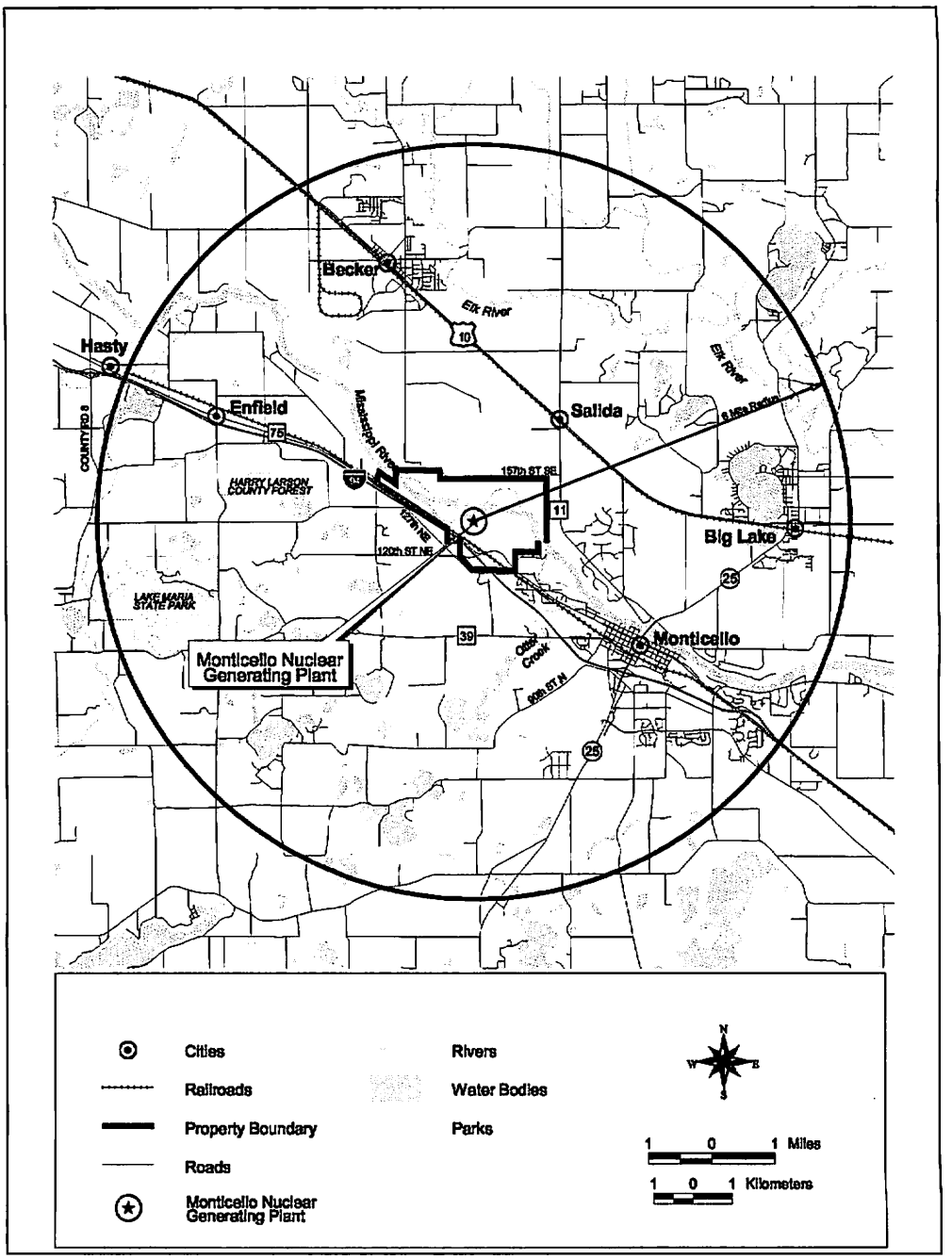
1) Within thirty (30) days of receiving this Site Permit, the Permittee shall submit to the Commission the Permittee's procedures to be used to receive and respond to substantial complaints received regarding the implementation of this project. The procedures shall be in accordance with the requirements set forth in the Commission complaint report procedure also attached to this permit.

2) The Permittee shall advise the Commission in writing (eFile) of any substantial complaints received by the Permittee during the course of construction that are not resolved within thirty (30) days of the complaint.

3) Upon request, the Permittee shall assist the Commission with the disposition of unresolved or longstanding complaints. This assistance shall include, but is not limited to, the submittal of complaint correspondence and complaint resolution efforts.

Site Permit
Xcel Energy Extended Power Uprate
Monticello Nuclear Generating Plant
PUC Docket No. E-002/GS-07-1567

ATTACHMENT 1 SITE MAP



MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE
FOR PERMITTED ENERGY FACILITIES

1. Purpose

To establish a uniform and timely method of submitting information required by Minnesota Public Utilities Commission (PUC) energy facility permits.

2. Scope and Applicability

This procedure encompasses all compliance filings required by permit.

3. Definitions

Compliance Filing – A sending (filing) of information to the PUC, where the information is required by a PUC site or route permit.

4. Responsibilities

A) The permittee shall eFile all compliance filings with Dr. Burl Haar, Executive Secretary, PUC, through the Department of Commerce (DOC) eDocket system. The system is located on the DOC website:
https://www.edockets.state.mn.us/EFiling/home.jsp

General instructions are provided on the website. Permittees must register on the website to eFile documents.

B) All filings must have a cover sheet that includes:
1) Date
2) Name of submitter / permittee
3) Type of Permit (Site or Route)
4) Project Location
5) Project Docket Number
6) Permit Section Under Which the Filing is Made
7) Short Description of the Filing

C) Filings that are graphic intensive (e.g., maps, plan and profile) must, in addition to being eFiled, be submitted as paper copies and on CD. Copies and CDs should be sent to: 1) Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN, 55101-2147, and 2) Department of Commerce, Energy Facility Permitting, 85 7th Place East, Suite 500, St. Paul, MN, 55101-2198. Additionally, the PUC may request a paper copy of any eFiled document.

PERMITTEE: Xcel Energy
PERMIT TYPE: LEPGP Site Permit
PROJECT LOCATION: Wright County
PUC DOCKET NUMBER: E-002/GS-07-1567

Filing Number	Permit Section	Description	Due Date
1	Section IV.A.	Contact Information	At least fourteen (14) days prior to the start of each of the refueling outages in 2009 and 2011.
2	Section IV.B.	Increased Power Level Notification	Within 30 days of achieving increased EPU power levels.
3	Section IV.C.	Work Completion	Within 120 days of the plant's return to service following completion of each of the 2009 and 2011 refueling outages.
6	Section X	Complaint Procedure	Within 30 days of receiving this Site Permit.

Oblique aerial photograph of
Monticello Nuclear Generating Plant, view looking toward the west.
Cooling towers in the foreground right; reactor building to the right.

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