



In the Matter of the Application of
Northern States Power Company d/b/a
Xcel Energy for a Certificate of Need for
Additional Dry Cask Storage at the
Monticello Nuclear Generating Plant
Independent Spent Fuel Storage
Installation

**ENVIRONMENTAL IMPACT STATEMENT
SCOPING DECISION**

DOCKET NO. E002/CN-21-668

The above matter has come before the Commissioner of the Department of Commerce (Department) for a decision on the scope of the environmental impact statement (EIS) that will be prepared for Xcel Energy's proposed additional storage of spent nuclear fuel in the independent spent fuel storage installation (ISFSI) at the Monticello nuclear generating plant (MNGP) in the city of Monticello, Minnesota.

Introduction

The MNGP is a 671 megawatt electric generating plant in Monticello, Minnesota. The plant is powered by a boiling water nuclear reactor. The plant has been in operation since 1971. Spent nuclear fuel from the plant is stored on site in the MNGP ISFSI.

The plant is currently licensed by the Nuclear Regulatory Commission (NRC) for operation through 2030. The Minnesota Public Utilities Commission (Commission) has authorized storage of spent nuclear fuel in the MNGP ISFSI sufficient to allow operation of the MNGP through 2030.

Project Description

Xcel Energy proposes to extend the operating life of the MNGP to 2040. To accommodate the additional spent nuclear fuel associated with this extension, Xcel Energy proposes to expand storage within the MNGP ISFSI.¹ This additional storage requires installation of a second concrete support pad within the existing ISFSI. A modular concrete storage system will be placed on the new pad. Xcel Energy indicates that spent fuel will be stored in welded canisters, with the canisters then being placed in the concrete storage system. Xcel Energy notes that it has not identified a specific canister technology or vendor, and that it will conduct a competitive bidding process to select the technology and vendor.² Xcel Energy indicates that the canister technology selected for the project will be licensed for storage and transport by the NRC.³

¹ Certificate of Need Application for Additional Dry Cask Storage at the Monticello Nuclear Generating Plant Independent Spent Fuel Storage Installation, Xcel Energy, September 1, 2021, eDockets Numbers [20219-177630-01](#) (through -10) [hereinafter CN Application].

² CN Application, Executive Summary and Chapter 8.

³ Id.

Xcel Energy estimates that approximately 14 additional spent fuel storage canisters will be needed for operations through 2040. Xcel Energy notes that the new concrete storage pad and concrete storage system will be able to accommodate approximately 36 canisters without changing the ISFSI size or security perimeter.⁴

Project Purpose

Xcel Energy indicates that additional storage at the MNGP ISFSI is necessary to support operation of the MNGP through 2040. Xcel Energy believes that operation of the MNGP through 2040 is a reasonable approach to ensuring the adequacy, reliability, and efficiency of Minnesota's energy supply.⁵

Regulatory Background

Additional storage of spent nuclear fuel in the MNGP ISFSI requires a certificate of need (CN) from the Commission.⁶ Xcel Energy applied to the Commission for a CN on September 1, 2021. Additionally, an EIS must be prepared by the Department, as the responsible governmental unit (RGU), prior to the Commission's decision on a CN.⁷

Concurrent with Xcel Energy's application to the Commission for a CN, Xcel Energy submitted its 2020-2034 integrated resource plan (IRP) to the Commission for approval.⁸ The IRP examines Xcel Energy's needs for electricity over a 15-year planning period and how these needs are best met. Xcel Energy's IRP recommends extending the operating life of the MNGP to 2040. At its meeting on February 8, 2022, the Commission approved Xcel Energy's IRP and authorized operation of the MNGP through 2040.⁹

Extending the operating life of the MNGP to 2040 requires the approval of the NRC.¹⁰ Xcel Energy anticipates filing a request with the NRC for a license extension – a subsequent license renewal (SLR) – in 2023. Though NRC license extensions are for a period of 20 years, Xcel Energy indicates, at this time, that they do not anticipate operating the MNGP past 2040.

Scoping Process

Scoping is the first step in the development of the EIS. The scoping process has two primary purposes: (1) to gather public input as to the impacts and mitigation measures to study in the EIS and (2) to focus the EIS on those impacts and mitigation measures that will aid in the Commission's decision on Xcel Energy's proposed additional storage in the MNGP ISFSI.¹¹

⁴ Id.

⁵ CN Application, Executive Summary and Chapter 4.

⁶ Minnesota Statute 116C.83, Subd. 2.

⁷ Minnesota Statute 116C.83, Subd. 6(b).

⁸ CN Application, Chapter 3; Commission Docket No. E002/RP-19-368.

⁹ Commission Docket No. E002/RP-19-368, Order Pending.

¹⁰ CN Application, Chapter 3.

¹¹ Minnesota Rule 4410.2100.

A scoping EAW was prepared for the project.¹² The EAW serves as an aid for commenters in formulating comments regarding the scope of the EIS.¹³

EERA staff gathered input on the scope of the EIS through public meetings and an associated comment period.¹⁴ This scoping decision identifies the impacts and mitigation measures that will be analyzed in the EIS.

Public Scoping Meetings

EERA staff held a public scoping meeting regarding Xcel Energy's proposed additional spent fuel storage in the MNGP ISFSI on January 25, 2022, in Monticello, Minnesota. Five people attended this meeting; one person provided a public comment.¹⁵ The following evening, January 26, 2022, EERA staff held a virtual public meeting. Approximately six people attended this meeting; two people provided public comments.¹⁶ Comments addressed the scope of potential impacts that will be analyzed in the EIS and the possible reprocessing of spent nuclear fuel in the United States.

Public Comments

Following the public scoping meetings, written comments were received from the U.S. Army Corps of Engineers (USACE), the Minnesota Department of Natural Resources (DNR), the Minnesota Pollution Control Agency (MPCA) and the city of Monticello.¹⁷ The USACE indicated that the project would not require a USACE permit. The DNR noted the presence of bald eagle nests near the project and recommended that Xcel Energy confer with the U.S Fish and Wildlife Service regarding potential impacts to eagles.¹⁸ The MPCA noted that it had no comments regarding the project at this time. The city of Monticello indicated its support for the project. The city noted its longstanding relationship with Xcel Energy and the safe operation of the MNGP ISFSI to date.¹⁹

Having reviewed the matter, consulted with Department staff, and in accordance with Minnesota Rule 4410.2100, I hereby make the following scoping decision:

¹² Scoping Environmental Assessment Worksheet, Monticello Nuclear Generating Plant Independent Spent Fuel Storage Installation Expansion Project, December 27, 2021, eDockets Number [202112-180998-01](#).

¹³ Minnesota Rule 4410.2100.

¹⁴ Minnesota Rule 4410.2100; Notice of Environmental Impact Statement Scoping Meetings and Availability of Scoping Environmental Assessment Worksheet, December 28, 2021, eDockets Number [202112-181051-01](#).

¹⁵ Oral Public Meeting Comments on Scope of EIS, eDockets Number [20222-182824-01](#).

¹⁶ Id.

¹⁷ Written Public Comments on Scope of EIS, eDockets Number [20222-182824-02](#).

¹⁸ Id.

¹⁹ Id.

MATTERS TO BE ADDRESSED

The issues outlined below will be analyzed in the EIS for Xcel Energy's proposed additional storage of spent nuclear fuel in the MNGP ISFSI.

I. GENERAL DESCRIPTION OF THE PROJECT

- A. Project Description
- B. Project Purpose
- C. Project Costs

II. REGULATORY FRAMEWORK

- A. Federal Approvals
- B. State Approvals
- C. Local Approvals

III. ENGINEERING, DESIGN, AND CONSTRUCTION

- A. Canister Systems for Spent Fuel Storage
- B. Canister Handling
- C. Canister Monitoring
- D. MNGP ISFSI

IV. POTENTIAL IMPACTS AND MITIGATIVE MEASURES – NON-RADIOLOGICAL

The EIS will include a discussion of human and environmental resources potentially impacted by the project. The EIS will discuss potential non-radiological impacts related to the proposed additional storage in the MNGP ISFSI.

- A. Environmental Setting
- B. Human Environment
 - 1. Noise, traffic, aesthetics, socioeconomics, land use, public health
- C. Natural Environment
 - 1. Water resources, flora, fauna, rare and unique natural resources
 - 2. Climate change
- D. Cumulative Impacts
 - 1. Potential human and environmental impacts of operation of the MNGP through 2040.
 - 2. Potential human and environmental impacts of using the MNGP ISFSI to facilitate decommissioning of the MNGP.

V. POTENTIAL IMPACTS AND MITIGATION MEASURES – RADIOLOGICAL

The EIS will discuss potential radiological impacts related to the proposed additional storage in the MNGP ISFSI.

- A. Natural Background Radiation and Radiation Exposure
- B. Radiological Monitoring at the MNGP and MNGP ISFSI
- C. Potential Impacts to the Public

1. Normal conditions
2. Incident (non-normal) conditions
- D. Potential Impacts to Workers
 1. Normal conditions
 2. Incident (non-normal) conditions
- E. Climate Change
- F. Environmental Justice
- G. Cumulative Impacts
 1. Potential human and environmental impacts of operation of the MNGP through 2040.
 - a) Normal conditions
 - b) Incident (non-normal) conditions
 2. Potential human and environmental impacts of using the MNGP ISFSI to facilitate decommissioning of the MNGP.
 - a) Normal conditions
 - b) Incident (non-normal) conditions

VI. ISFSI ALTERNATIVES

- A. No Action
- B. Increased Spent Fuel Pool Capacity
- C. Interim Off-Site Storage
- D. Federal Geologic Repository, Yucca Mountain
- E. Alternative Spent Fuel Storage Technologies

VII. MNGP ALTERNATIVES

- A. Current MNGP Role in Minnesota Energy Supply
- B. Alternatives to Continued Operation of the MNGP
 1. No Action
 2. Monticello Replacement Case 1 – Lowest Cost, Carbon Resources Can Be Used.²⁰
 3. Monticello Replacement Case 2 – Lowest Cost, Renewables and Storage Only.²¹

VIII. DATA AND ANALYSIS

Data and analysis in the EIS will be commensurate with the importance of potential impacts and the relevance of the information to consideration of the need for mitigation measures.²² EERA staff will consider the relationship between the cost of data and analyses and the relevance and importance of the information in determining the level of detail of information to be prepared for the EIS.

If relevant information cannot be obtained within timelines prescribed by statute and

²⁰ CN Application, Chapter 9.

²¹ Id.

²² Minnesota Rule 4410.2300.

rule, or if the costs of obtaining such information is excessive, or the means to obtain it is not known, EERA staff will include in the EIS a statement that such information is incomplete or unavailable and the relevance of the information in evaluating potential impacts.²³

IX. STUDIES TO BE UNDERTAKEN

No studies will be undertaken in preparation of the EIS.

ISSUES OUTSIDE THE SCOPE OF THE EIS

The EIS will not address the following topics:

- A. The appropriateness of NRC regulations for spent nuclear fuel storage technology.
- B. Potential impacts associated with the nuclear fuel cycle.
- C. Potential impacts associated with the transportation of spent nuclear fuel from the MNGP ISFSI.
- D. ISFSI sites outside the MNGP plant boundary. The Commission's authority is limited to the storage of spent nuclear fuel generated by a Minnesota nuclear generation facility and stored on the site of that facility.²⁴
- E. Economic analysis of generation alternatives. Economic analysis in the EIS will be limited to alternatives discussed in Xcel Energy's CN application. Additional economic analysis will be provided during the Commission's CN proceedings by the Department of Commerce, Energy Regulation and Planning unit.
- F. The appropriateness of NRC regulations and standards for radiation exposure. The EIS may reference certain standards promulgated by the NRC; however, the EIS will not address the adequacy of these standards.

SCHEDULE

A draft EIS is anticipated to be completed and available in the fall of 2022. A public meeting and comment period on the draft EIS will follow. Timely and substantive comments on the draft EIS will be responded to in a final EIS. The schedule for the draft and final EIS will be coordinated with the contested case hearing that will be held for Xcel Energy's CN application.

²³ Minnesota Rule 4410.2500.

²⁴ Minnesota Statute 116C.83

Signed this 2nd day of March, 2022

STATE OF MINNESOTA
DEPARTMENT OF COMMERCE

A handwritten signature in black ink, appearing to read "Katherine Blauvelt". The signature is fluid and cursive, with a large initial "K" and "B".

Katherine Blauvelt, Assistant Commissioner