

Staff Briefing Papers

Meeting Date August 24, 2023 Agenda Item **1

Company Xcel Energy

PUC Docket No. **E-002/CN-21-668**
OAH Docket No. **8-2500-38129**

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 in Wright County

Issues Should the Commission approve a certificate of need for additional dry cask storage at the existing Monticello Nuclear Generating Plant Independent Spent Fuel Storage Installation?

If approved, what, If any, additional condition(s) should be included in the Commission's Order?

Staff Michael Kaluzniak mike.kaluzniak@state.mn.us 651-201-2257



Relevant Documents

Date

| | |
|--|-------------------|
| Initial Filing - Certificate of Need Application (10 parts) | September 1, 2021 |
| Order Accepting Application and Notice and Order for Hearing | February 15, 2022 |
| DOC EERA EIS Scoping Decision | March 2, 2022 |
| Xcel - Information to Aid the Preparation of Draft EIS | September 9, 2022 |
| DOC EERA Draft Environmental Impact Statement | October 4, 2022 |

To request this document in another format such as large print or audio, call 651.296.0406 (voice). Persons with a hearing or speech impairment may call using their preferred Telecommunications Relay Service or email consumer.puc@state.mn.us for assistance.

The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.



Relevant Documents

| | Date |
|---|------------------|
| DOC EERA Final EIS | January 10, 2023 |
| DOC EERA Orders determining Final EIS to be Adequate and Order Determining ISFSI Design to be protective of Groundwater (2 parts) | February 6, 2023 |
| DOC DER Direct Testimony (Rakow, Winner, and Shah, 5 parts, 1 Trade-Secret) | March 1, 2023 |
| Xcel Testimony (Krug, Prochaska, Peterson, Mathiasen, Mandich and Flo, 6 parts) | March 1, 2023 |
| Notice of Public Hearings | March 16, 2023 |
| Xcel Rebuttal Testimony (Krug, Prochaska, 2 parts) | March 27, 2023 |
| Hearing Exhibit A - Public Comment (Gordon) | March 30, 2023 |
| Public Comment (Patch) | April 7, 2023 |
| DOC DER Surrebuttal (Rakow, Winner, 2 parts) | April 14, 2023 |
| Public Comments (Schoen, Larsen, Heinrichs) | April 17, 2023 |
| Master Exhibit List | April 20, 2023 |
| Xcel Proposed Findings and Supplement (2 parts) | May 15, 2023 |
| DOC Supplemental Filing | May 30, 2023 |
| OAH ALJ Report | June 29, 2023 |
| DOC Exceptions to ALJ Report | July 14, 2023 |
| Xcel Exceptions to ALJ Report | July 14, 2023 |

ISSUES

Should the Commission approve a certificate of need for additional dry cask storage at the existing Monticello Nuclear Generating Plant Independent Spent Fuel Storage Installation?

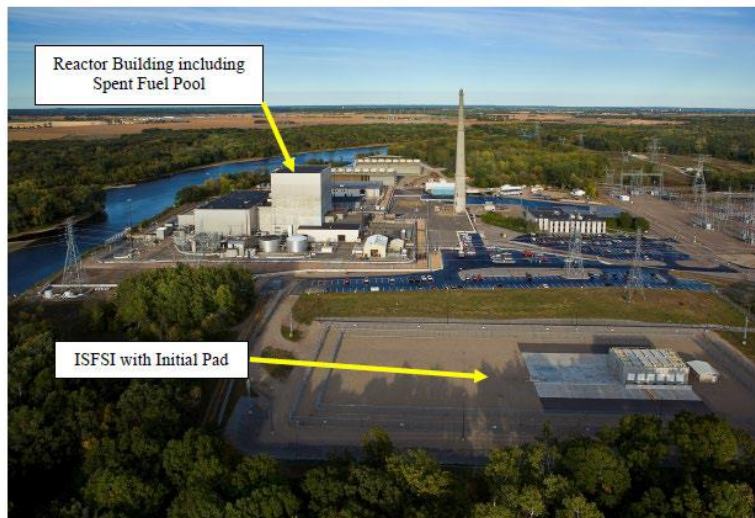
If approved, what, if any, additional condition(s) should be included in the Commission's Order?

BACKGROUND ON MNGP PLANT AND APPLICATION FOR ISFSI EXPANSION

History of the Monticello Nuclear Generating Plant

The Monticello Nuclear Generating Plant (MNGP) is owned and operated by Northern States Power Company-Minnesota, doing business as Xcel Energy (Xcel). The plant is equipped with a single-unit, boiling water reactor rated for gross output at 671 megawatts (MW). The MNGP is located within the city limits of Monticello, Minnesota in Wright County, on the western bank of the Mississippi River approximately 50 miles northwest of Minneapolis. The plant became operational in 1971. The MNGP site in total consists of approximately 2,150 acres of land owned by Xcel.

MNGP (plant) was originally licensed by the U.S. Nuclear Regulatory Commission (NRC) to operate through 2010. The plant operates a single unit boiling water reactor powered by nuclear fuel. Spent nuclear fuel from the operation of the plant is stored on site in a spent fuel pool inside the plant, and a separate outdoor independent spent fuel storage installation (ISFSI).



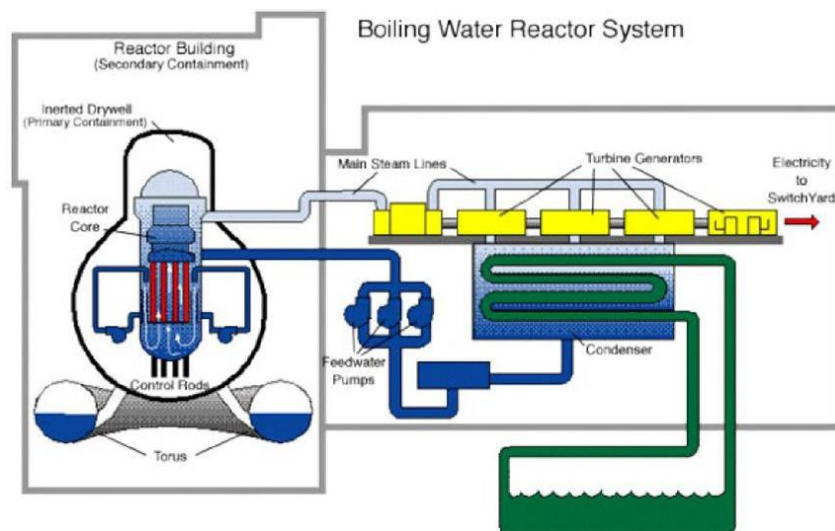
On October 23, 2006, the Commission granted a certificate of need for construction of the ISFSI

at the MNGP.¹ The Commission’s order authorized the storage of up to 30 spent fuel containers, vaults, and associated equipment necessary to allow the plant to continue its operation through 2030.



MNGP Operations and Spent Fuel Generation

MNGP uses fuel assemblies in its reactor core to generate heat, which then boils water to produce steam inside the reactor vessel. The steam is directed toward the turbine generators that produce electrical power. Each fuel assembly is used for several fuel cycles (about six years) before its output drops to the point it is no longer effective. Spent nuclear fuel assemblies are offloaded to a spent fuel pool located in the reactor building adjacent to the reactor. After sufficient cooling time in the spent fuel pool, the used fuel assemblies are loaded into a dry cask canister system. The canisters are sealed before being moved to the ISFSI. The canisters provide radiation shielding to workers and members of the public during loading and storage, as well as protection from external hazards during storage.



¹ Order Granting Certificate of Need for Interim Independent Spent fuel Storage Installation, Docket No. E-002/CN-05-123, e-Dockets No. [3390312](#), October 23, 2006.

Continued Plant Operations

On November 8, 2006, the NRC extended MNGP's operating license authorizing its operation through September 8, 2030.

In its most recent Integrated Resources Plan², Xcel claimed that extending operations of the MNGP would be the most prudent path forward to achieving its clean energy goals while also maintaining affordability and reliability³. Xcel believes that operation of the MNGP through 2040 is a reasonable approach to ensure the adequacy, reliability, and efficiency of Minnesota's energy supply. Xcel indicated that additional storage at the MNGP ISFSI is necessary to support operation of the MNGP through 2040. In its April 15, 2022 Order, the Commission allowed Xcel to continue pursuing a ten-year extension for MNGP.

Xcel is currently seeking a Subsequent License Renewal (SLR) from NRC to extend MNGP's operating license to enable continued electrical generation at the plant through the year 2050.⁴

STATUTES AND RULES

Certificate of Need Requirement

[Minnesota Statutes § 216B.2421 Subd. 2 \(8\)](#) defines any nuclear fuel processing or nuclear waste storage or disposal facility at a large energy facility.

[Minnesota Statute § 216B.243](#), establishes the requirement for certificates of need for large energy generation facilities and provides the criteria for evaluating need.

[Minnesota Rules, chapter 7855](#) contains the requirements for a certificate of need for nuclear waste storage facilities including the application contents, the consideration of alternatives, environmental information, historical and forecast data, wastes and emissions, pollution control, safeguard equipment, and estimates of induced development.

EIS Requirement and Responsible Governmental Unit Designation

[Minnesota Statute 116C.83 – Authorization for additional Dry Cask Storage](#)

This statute requires that spent nuclear fuel must be managed in such a way to facilitate the shipment of waste out of state to a permanent or interim storage facility as soon as feasible in a manner that allows continued operation of the plant and limits the storage of spent fuel that is generated by the MNGP.

² Commission Docket E-002/RP-19-368.

³ Certificate of Need Application page 4, September 1, 2021.

⁴ NRC only issues operating licenses with 20-year periods, hence the disparity between the ISFSI's CN approval to the year 2040 in this proceeding, and the potential 2050 expiration date of MNGP's NRC-issued supplemental renewal operating license..

[Minnesota Statute 116C.83, Subd. 5](#) limits the amount of radionuclides released to groundwater and requires that spent nuclear fuel waste facilities must be selected, located, and designed to keep any allowable radionuclides as low as reasonably achievable⁵.

[Minnesota Statute 116C.83, Subd. 6](#) requires that an environmental impact statement be prepared for construction or expansion of an ISFSI, and designates the Department of Commerce as the Responsible Governmental Unit (RGU) for the EIS.

[Minn. Rule 4410.4400](#) provides that an environmental impact statement (EIS) must be for the construction or expansion of an ISFSI. The EIS must be prepared in accordance with Minnesota Rule parts 4410.2000 to 4410.3100.

Certificate of Need Decision Criteria

[Minnesota Rule 7855.0120](#) establishes the criteria to be used by the Commission to evaluate the need for large energy projects, including expansion of the ISFSI. The Rule states that the Commission shall grant a CN if the record demonstrates, by a preponderance of the evidence, that:

- a. the probable direct or indirect result of denial would have an adverse effect upon the future adequacy, reliability, safety, or efficiency of energy supply to the applicant, the applicant's customers, or the people of Minnesota and neighboring states.
- b. a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record by parties or persons other than the applicant.
- c. it has been demonstrated by a preponderance of the evidence on the record that the consequences of granting the certificate of need for the proposed facility, or a suitable modification thereof, are more favorable to society than the consequences of denying the certificate.
- d. it has not been demonstrated on the record that the design, construction, operation, or retirement of the proposed facility will fail to comply with those relevant policies, rules, and regulations of other state and federal agencies and local governments.

Notification of Decision to Legislature Requirement

[Minnesota Statute § 116C.83, subdivisions 1-3](#) requires the Commission to report to the Legislature concerning any certificate of need granted for additional dry cask storage.

⁵ The specific requirements of this section are provided in [Minn. Stat. § 116C.76](#) (1986).

Subdivision 3 of the statute stays the Commission's decision until June 1, following the next regular annual session of the Legislature that begins after the date of the Commission decision to allow the Legislature an opportunity to review any Commission decision approving additional dry cask storage.

PROCEDURAL HISTORY

On September 1, 2021, Xcel filed an application with the Commission for a certificate of need to expand its Independent Spent Fuel Storage Installation at the Monticello Nuclear Generating Plant.

On December 28, 2021, the Department of Commerce Energy Environmental Review and Analysis Unit (DOC EERA) issued notices of the *EIS Scoping Meetings and Availability of Scoping Environmental Assessment Worksheet, Draft Scoping Decision, and Scoping Environmental Assessment Worksheet*.

On February 15, 2022, the Commission issued its *Order Accepting Application and Notice and Order for Hearing*.

On March 2, 2022, DOC EERA issued its *EIS Scoping Decision*.

On September 9, 2022, Xcel filed additional Information to aid in the preparation of the Draft EIS.

On October 4, 2022, DOC EERA issued its *Draft Environmental Impact Statement*. On the same day, DOC EERA issued a Notice of DEIS Public Information Meetings.⁶ The DEIS meetings were held on Wednesday, October 26, 2022, at the Monticello Community Center in Monticello, Minnesota, and remotely (online) on Thursday, October 27, 2022.

On November 14, 2022, Xcel filed its comments on the Draft EIS.

On January 10, 2023, DOC EERA issued its *Final Environmental Impact Statement*.

On January 23, 2023, Xcel filed its comments stating the *Final EIS* met all applicable regulatory requirements and therefore the document should be considered adequate.

On February 6, 2023, the Commissioner of the Department of Commerce issued its *Order Determining Final EIS to be Adequate and Order Determining ISFSI Design to be Protective of Groundwater*.

⁶ Notice of Draft EIS Availability and Public Information Meetings, eDockets No. [202210-189527-01](#).

On March 1, 2023, Xcel filed its Direct testimony from Daniel Flo, Allen Krug, Farah Mandich, Glenn Mathiasen, Jessica Peterson, and Pamela Prochaska.

On March 1, 2023, Department of Commerce Division of Energy Resources (DOC DER) filed its Direct Testimony from Steve Rakow, Sachin Shah, and Danielle Winner and recommended the Commission grant Xcel a certificate of need with conditions.

On March 16, 2023, the Commission issued its Notice of Public Hearings. Public hearings were held on Wednesday, March 29, 2023, at the Monticello Community Center in Monticello, Minnesota, and remotely (online) on Thursday, March 30, 2023.

On March 27, 2023, Xcel filed its Rebuttal Testimony from Allen Krug and Pamela Prochaska.

On April 7, 2023, a public comment from Fredrick Patch was filed stating that spent nuclear waste poses an existential threat to the United States and should be moved to a deep underground storage repository.

On April 14, 2023, DOC DER filed its Surrebuttal Testimony from Steve Rakow and Danielle Winner.

On April 17, 2023, public comments (Schoen, Larsen and Heinrichs) were filed. The comments addressed the November 22, 2022 tritium leak at the reactor site and requested further investigation and remediation be conducted prior to the completion of this proceeding.

On May 1, 2023, Judge Lipman issued the Fifth Prehearing Order modifying the schedule and inviting comments on subsidiary questions related to the tritium leak at the plant that was discovered on November 22, 2022.

On May 30, 2023, the Office of Attorney General, (OAG) on behalf of DOC, submitted a supplemental filing regarding the potential impact of the recent leak of tritiated water as requested by Judge Lipman. The OAG stated that based on its analysis, continued operations of MNGP will likely remain necessary to meet the state's overall near-term energy needs and determined that a supplement to the Final EIS is unnecessary.

On June 29, 2023, Judge Lipman filed the *ALJ Report* recommending the Commission grant Xcel a certificate of need with conditions.

On July 14, 2023, DOC filed its *Exceptions to ALJ Report*.

On July 14, 2023, Xcel filed its *Exceptions to ALJ Report*.

POSITIONS OF THE PARTIES

Xcel Energy's Certificate of Need for Expansion of the MNGP ISFSI

Project Description

The current ISFSI consists of an area approximately 460 feet long and 200 feet wide, roughly 3.5 acres in size, and located adjacent to the reactor and turbine building. The site contains storage vaults that are monitored with cameras, other security devices, and temperature sensors. Within the storage area, spent fuel is currently stored in 30 canisters in modular concrete vaults, placed on a reinforced concrete support pad. Concrete approach pads surround the support pad to accommodate vault placement and spent fuel canister transfer traffic.

Xcel Energy is requesting additional storage of spent nuclear fuel at the ISFSI sufficient to extend its operating life by 10 years – from 2030 to 2040. This additional storage requires installation of a second concrete support pad within the existing ISFSI. A modular concrete storage system would be placed on a new concrete pad within the fence line of the existing ISFSI. Xcel Energy indicates that spent fuel would be stored in steel canisters, with the canisters then being placed in the concrete storage system. The proposed expansion area will be designed to hold approximately 36 canister vaults; however, Xcel Energy estimates that approximately 14 additional spent fuel storage canisters will be needed for continued operations through 2040.

Xcel provided an analysis of the project relative to the operative criteria in Minnesota statutes and rules for a certificate of need. Xcel asserted the project satisfies the requirements set forth in Minnesota Rule 7855.0120 and requested the Commission grant a certificate of need for the facility.

Xcel comments on the Draft EIS

On September 9, 2022, Xcel filed information to aid the preparation of the Draft EIS in response to questions raised during the public information meetings and scoping period. Xcel provided several comments clarifying the language in the Draft EIS on November 14, 2022. One member of the public provided comments in support of the proposed project.

Xcel Testimony in support of its Application

Allen Krug presented testimony on the policy considerations of its certificate of need application. Mr. Krug asserted that MNGP provides reliable energy, is cost-effective, and is critical to achieving Xcel's carbon reduction initiatives. Mr. Krug also discussed the importance of MNGP in the context of a resource planning perspective and noted that closure of MNGP would result in increased market purchases, higher emissions and vulnerability to wholesale energy markets, fuel prices, and supply volatility. Mr. Krug also noted that Xcel was unable to identify any off-site facilities that would economically and reliably store or reprocess additional

spent fuel. In rebuttal testimony, Mr. Krug expressed agreement with DOC DER's proposed requisite conditions for approval of a certificate of need.

Pamela Prochaska sponsored testimony on nuclear operations and policy including an overview of the plant, the proposed project and alternatives, and its operating license and subsequent license renewal process. In rebuttal testimony, Ms. Prochaska asserted that the conservation programs and impacts raised in DOC DER's testimony apply to the MNGP itself, but not necessarily to the ISFSI. Ms. Prochaska indicated in rebuttal testimony that she was not aware of any laws or regulatory proposals requiring fees for radioactive waste externality costs, and clarified that Xcel has not been required to fund DOE's nuclear waste fund since 2014.

Farah Mandich provided information on Xcel's forecasts of energy and capacity needs and the role of MNGP's extended operations until 2040 to meet those needs. Ms. Farah emphasized MNGP's role in providing "carbon-free" electricity and as a source of reliable baseload power. Ms. Farah concluded that if the ISFSI was not expanded, MNGP would have to close in 2030, and Xcel would need to replace substantial capacity and energy it currently provides from other sources.

Daniel Flo provided testimony describing the environmental analysis conducted for the project and alternative storage locations within the plant. Mr. Flo also noted that a building permit may be required from the City of Monticello.

Glenn Mathiasen provided testimony on radiological impacts of the proposed ISFSI expansion. Mr. Mathiasen discussed radiological wastes and emission at the ISFSI and stated that its expansion would utilize sealed stainless-steel containers closed by multiple layers so no radioactive materials can escape. Mr. Mathiasen also noted that NRC analysis of potential accidents and contingency plans resulted in a very low risk of a release. The testimony also described the radiological monitoring of the ISFSI and expected radiation exposure to plant employees.

Jessica Peterson provided testimony noting that Xcel's energy conservation programs are insufficient to replace the generation of energy at MNGP. Ms. Peterson also confirmed that promotional activities by Xcel did not create the need for additional spent fuel storage.

Xcel's Proposed Findings of Fact, Conclusions of Law, and Recommendation

Xcel's May 15, 2023 Proposed Findings of Fact, Conclusions of Law, and Recommendation proposed 191 findings of fact, 14 conclusions and a recommendation that the Commission issue a certificate of need to Xcel incorporating the conditions offered by DOC DER.

DOC EERA EIS

Agency Comments during EIS Scoping

The Minnesota Department of Natural Resources (DNR) noted the EIS should address the presence of eagle nests in the area. DNR noted that its review of National heritage Information System identified two eagle nests that are a federally protected species within one mile of the project.

The U.S. Army Corps of Engineers noted that any discharge of dredged or fill materials into navigable waters may be subject to permitting under the Clean Water Act.

The Minnesota Pollution Control Agency (MPCA) stated they had no comments on the scope of the EIS but noted that it the responsibility of the project proposer to obtain any necessary permits from the MPCA.

The City of Monticello wrote to express its support for the project to maintain operation of the plant past its current license expiration in 2030. The city emphasized Xcel's successful operation of the ISFSI since its construction and that additional environmental impacts from the expansion of the ISFSI are unlikely.

Public Comments on the DRAFT EIS

One member of the public wrote to express support for the project. Two oral comments were received during the Draft EIS meetings – one requested information on the funding of the project and expressed concern regarding a long-term solution to the storage of spent fuel. A second inquired about exposure risks to employees and the public. Xcel also suggested several edits to the document.

EIS Adequacy and Project Protection of Groundwater

Upon completion of the Final EIS, the Commissioner of the Department of Commerce issued an order on February 6, 2023, which determined that the final EIS prepared for Xcel Energy's proposed additional storage of spent nuclear fuel at the Monticello nuclear generating plant was adequate per Minn. R. 4410.2800, Subp. 4. In a separate order that day, the Commissioner concluded that Xcel Energy had demonstrated that the design of the ISFSI was such that it could be reasonably expected that the operation of the ISFSI would not result in groundwater contamination more than the standards established in Minnesota Statute 116C.76, Subd. 1, clauses (1) to (3).

DOC DER Comments

Sachin Shah filed testimony analyzing Xcel's forecasting of demand for energy as well as the relationship of the proposed facility to overall state energy needs. Mr. Shah asserted that Xcel's need forecasted in the docket is systemically biased and optimistic or overstated. However,

DOC DER concluded that the proposed project would have a positive impact on meeting the State's energy need by providing additional energy and capacity.

Danielle Winner filed testimony evaluating conservation programs and impacts explaining that Xcel's conservation programs would not be able to replace the generation from MNGP, and that promotional activities by Xcel did not create the need for the project.

Dr. Steve Rakow filed comments summarizing DOC DER's analysis of need, generation alternatives, and policy issues related to project need. Doctor Rakow stated that, based on the contents of the EIS and the capacity expansion modelling of potential replacements generation sources, continued operation of MNGP is expected to create minimal impacts to the natural and socioeconomic environment. According to Doctor Rakow, the alternative cases which considered replacement of MNGP would likely generate significant impacts through additional greenhouse gas emissions, and flora and fauna impacts. Upon consideration of DOC DER's testimony and analysis of the issues above, Dr. Rakow recommended that the Commission approve Xcel's certificate of need application, subject to the conditions 3a to 3d and 3f in the attachments to his direct testimony:

- 3a: Xcel must justify any costs (including operations-and-management expense, ongoing capital expense—including revenue requirements related to capital included in rate base—insurance expense, land-lease expense, and property/production tax expense) that are higher than forecasted in this proceeding. Xcel bears the burden of proof in any future regulatory proceeding related to the recovery of costs above those forecasted in this proceeding.
- 3b: The Commission will otherwise hold the Company accountable for the price and terms used to evaluate the project.
- 3c: Ratepayers will not be put at risk for any assumed benefits that do not materialize.
- 3d: Xcel customers must be protected from risks associated with the non-deliverability of accredited capacity and/or energy from the project. The Commission may adjust Xcel's recovery of costs associated with this project in the future if actual production varies significantly from assumed production over an extended period.
- 3f: Xcel must clearly account for all costs incurred for the project.

Doctor Rakow noted in rebuttal testimony that Xcel's concurred with DOC DER's requisite conditions being included in the certificate of need.

PUBLIC HEARINGS

On March 16, 2023, the Commission issued its Notice of Public Hearings on Xcel's application. Administrative Law Judge Eric Lipman presided over public hearings in Monticello on March 29, 2023 and online via the Webex platform on March 30, 2023. The hearings provided an opportunity for the public to provide their input on the necessity of the project, provide input on the no-build alternative, and suggest or opine on alternatives for the Commission to consider. Several participants raised questions regarding the recent leak of tritiated water at the MNGP facility.

POST-HEARING FILINGS

Tritiated Water Leak at MNGP

During the public hearings, Xcel made a statement regarding a recent tritiated water leak that had occurred at a building near the reactor vessel at the plant. According to Xcel, during routine groundwater testing on November 21 and November 22, 2022, Xcel Energy detected tritium in the groundwater under the plant which was later identified as coming from a leaking water pipe running between two buildings at the plant.

On May 1, 2023, Judge Lipman issued the Fifth Prehearing Order requesting the parties provide supplemental information regarding the leak of tritiated water at the plant first identified in November 2022.

On May 15, 2023, Xcel filed a Supplement in response to the ALJ's request, along its Proposed Findings of Fact, Conclusions of Law, and Recommendation. Xcel's supplemental filing includes a history of the leak, its investigation and ongoing remediation at the site. Xcel argued that the discovery and disclosures of the leak did not call into question whether any of the certificate of need factors have been satisfied in connection with the expansion of the ISFSI. The supplemental filing considered those factors independently in relation the tritiated water leak. Xcel stated that it would continue to take action to ensure that the leak does not pose a threat to the public or the environment.

On May 20, 2023, in response to the Fifth Prehearing Order, DOC provided an analysis of the proposed project with respect to the decision criteria of Minn. R. 7855.0120 given its understanding of the tritiated water leak. DOC noted that, while the leak is unfortunate, DOC continued to recommend that the Commission grant a certificate of need to Xcel to expand its existing spent nuclear fuel storage facility at Monticello, subject to certain cost safeguards and reporting requirements. The Department concluded that the Final EIS adequately addressed the possibility of tritiated water contamination and does not require supplementation.

Administrative Law Judge Report

On June 29, 2023, the Administrative Law Judge filed his Findings of Fact, Conclusions of Law, and Recommendation (ALJ Report). The ALJ Report included 249 findings of fact, 15 conclusions of law, and a recommendation.

The Administrative Law Judge concluded that Xcel Energy has satisfied the criteria set forth under Minnesota law for a certificate of need for additional dry cask storage at the MNGP ISFSI. The Administrative Law Judge recommended the Commission grant Xcel Energy's Application for a certificate of need, subject to certain specified conditions recommended by DOC DER.

Xcel's July 14, 2023 Exceptions to the ALJ Report

According to Xcel, the ALJ Report accurately sets forth the legal standards to be applied in the certificate of need proceeding and demonstrated a thorough review of the record.

Xcel recommended that finding 193 be stricken because it inaccurately states that tritium is classified as a high-level radioactive waste (HLW):

~~193. Tritium is a radiogenic and radioactive isotope of hydrogen. As a result, the U.S. Department of Energy classifies waste streams that included radionuclides such as tritium as "high level radioactive waste."~~

Xcel noted that the sources cited in the ALJ Report do not support the classification of tritium as high-level radioactive waste. Xcel noted that no witness had taken the position that waste streams including tritium constitute HLW and that the finding is not necessary to support any other finding, conclusion, or recommendation in the Report.

Xcel also proposed modification of the following findings for the purpose of clarity:

69. Xcel Energy filed an application with the NRC on January 9, 2023, to renew the [Plant's](#) operating license, ~~again, this~~ [which if granted](#), would permit the Plant to operate until September 8, 2050.

104. Company witness Ms. Peterson explained that the Monticello Plant is an essential part of the Company's electrical supply system and has been for 50 years. The need for additional storage [is a simple function of](#) ~~from~~ extending the life of the Plant beyond 2030.

124. The Administrative Law Judge finds that the record demonstrates that the denial of a CN would adversely affect the future adequacy, reliability, or efficiency of energy supplies. Moreover, the denial of the CN would ~~negative~~ [negatively](#) impact the applicant, its customers, the people of Minnesota and the residents of neighboring states. The

Administrative Law Judge concludes that the Company has adequately met the first criteria for a CN.

146. Company witness Dan Flo explained that because of the availability and ~~suitable~~ suitability of the existing site, the Company did not expend a lot of planning resources on an alternative location for a second ISFSI within the Monticello Plant.

204. Approximately 400,000 gallons of water leaked before the source of the leak was discovered and contained. The amount of tritium contained in the leaked water was approximately 8 curies. ~~To date~~ As of May 15, 2023, the Company has had recovered 4.111 curies of the 8 curies leaked.

225. As noted above, no other non-nuclear powered baseload generation source in the Company's system can operate at nearly full capacity, year-round. The Company's Monticello Plant and Prairie Island Nuclear Generating plant are the only generation resources in Xcel Energy's system that provides this level of consistent energy and capacity.²²⁵

Xcel also proposed modifications to clarify part 1.e of the ALJ's Recommendation related to the duration of the reporting requirement related to the tritium leak at the plant:

1.e. Xcel Energy must file quarterly reports describing its activities to remediate the leak of tritiated water until such time ~~as the leakage has been fully remediated~~ sampling results from the Company's monitoring wells demonstrate, for four consecutive quarters, tritium levels below the EPA drinking water standard of 20,000 pCi/L. Further, the reports must include detail describing the Company's groundwater monitoring and treatment of tritiated groundwater.

Xcel asserted the proposed clarification is consistent with the Department's proposed condition and adds the standard that the Company intends to use to determine that the leak has been remediated. The proposed clarification would provide certainty around expectations for both the Company and those parties receiving and reviewing reports on the remediation efforts.

DOC Exceptions to the ALJ Report

DOC asked that findings 192 through 212 related to the tritiated water leak be replaced with proposed findings 162 and 163 from Xcel's May 15, 2023 *Proposed Summary of Testimony, Findings of Fact, Conclusions of Law & Recommendation*. DOC noted that findings 192-212 appear to have relied upon Xcel's supplemental filing regarding the tritiated water leak. According to DOC, neither DOC nor the ALJ had a meaningful opportunity to review Xcel's statements regarding the leak. DOC argued that Xcel's proposed findings 162 and 163 are a reasonable substitute that acknowledge the tritiated water leak occurred during the pendency of this proceeding without impinging on future cost and prudence reviews:

162. The Company explained that it discovered a leak of tritiated water in November 2022 and promptly reported the leak to the Minnesota State Duty Officer and the NRC. The Company stated that the leak has not impacted groundwater outside the boundaries of the Plant, the Mississippi River, or any drinking water wells. The Company stated it has located the leak and repaired it. The Company also states that it continues to pump contaminated groundwater and will continue to take action to appropriately manage the cleanup of the tritiated water plume.

163. The ALJ finds that the Company's two replacement cases are reasonable test cases by which to compare the environmental impacts of extending the life of the Monticello Plant. The ALJ also finds that environmental considerations weigh in favor of extending the Monticello Plant and granting the CON, as compared to the Company's two replacement cases. The ALJ further finds that the circumstances around the leak of tritiated water at the Plant and the Company's response to that leak does not change the ALJ's finding on this point.

STAFF ANALYSIS

Based on information in Xcel's application, comments in the record, the analysis provided in the Final EIS, recommendations from DOC DER and DOC EERA, comments received, and other evidence in the record; staff provides the following discussion and recommendations.

Environmental Impact Statement

Staff has reviewed the EIS and agrees with the ALJ that DOC EERA conducted an appropriate environmental analysis of the project that complies with the Minnesota Environmental Policy Act and Minn. R. 4410.0200-.9910. Because the Commission is not the responsible governmental unit for the EIS, it is not necessary for the Commission to affirm its adequacy.

Request for EIS Supplement

Staff agrees with Xcel and DOC EERA that a supplement to the EIS to address the issues associate with tritium leak is unnecessary and emphasizes that the current docket is in relation to the ISFSI itself, not the MNGP. Staff notes that the scope of the EIS included an evaluation of the potential radiological impacts and mitigation measures related to the proposed additional storage in the MNGP ISFSI, not the generating plant itself. For example, the scoping decision specifically excluded "potential Impacts associated with the nuclear fuel cycle".⁷ In this respect, the certificate of need is a separate approval from the MNGP.

Exceptions to the ALJ Report

Staff agrees with Xcel's exceptions to findings 69, 104, 124, 146, and 225 of the ALJ Report

⁷ *EIS Scoping Decision* at page 6, e-Dockets No. [20223-183375-01](#), March 2, 2022.

because the changes provide additional clarity to the record. Staff notes that finding 69 may be interpreted as conferring authority for Xcel to continue operations at MNGP from 2040 until 2050. The Commission may wish to clarify that the operations of the plant beyond 2040 are subject to review in future resource planning proceedings.

Finally, staff agrees with DOC DER’s exceptions to the ALJ Report because the release of tritiated water is in relation to the plant itself and not the ISFSI.

Notification to the Legislature

Should the Commission grant the certificate of need, the Commission must notify the Legislature of its decision. Staff has included Decision Option 6 authorizing the executive secretary to notify the Legislature to fulfill this requirement.

DECISION OPTIONS

1. Adopt the ALJ report to the extent it is consistent with the Commission’s final decision.

2. Adopt Xcel’s proposed modifications to findings 69, 104, 124, 146, and 225 of the ALJ report, as shown in Xcel’s July 14, 2023 filing. *Xcel, DOC EERA, Staff*
AND
3. Adopt Xcel’s proposed modifications to findings 193 and 204 of the report, as shown in Xcel’s July 14, 2023 filing. *Xcel*
OR (DOs 3 and 4 are mutually exclusive)
4. Adopt DOC’s proposal to replace the ALJ’s findings 192-212 with Xcel’s proposed findings 162-163, as shown in DOC’s July 14, 2023 filing *DOC EERA, Staff*
AND
5. Issue a certificate of need to Xcel for additional dry cask storage at ISFSI with the following conditions:
 - a. Xcel must justify any costs, including those of operations and maintenance, ongoing capital expense, revenue requirements relate to capital including in the rate base, insurance expense, land-lease expense, and property tax expense.
 - b. The Commission will otherwise hold Xcel accountable for the price and terms used to evaluate the project.
 - c. Ratepayers will not be put at risk for any assumed benefits that do not materialize.
 - d. Xcel’s customers must be protected from risks associated with the non-deliverability of accredited capacity, energy, or both, from the project. The

Commission may adjust Xcel's recovery of costs associated with this project in the future if actual production varies significantly from assumed production over an extended period.

OAH, Xcel, DOC, Staff

- e. Xcel Energy must file quarterly reports describing its activities to remediate the leak of tritiated water until such time as the leakage has been fully remediated. Further, the reports must include details of the Company's groundwater monitoring and treatment of tritiated groundwater.

OAH

- f. Xcel must file quarterly reports describing its activities to remediate the leak of tritiated water until such time as ~~the leakage has been fully remediated~~ sampling results from the Company's monitoring wells demonstrate, for four consecutive quarters, tritium levels below the EPA drinking water standard of 20,000 pCi/L. The reports must include detail describing the Company's groundwater monitoring and treatment of tritiated groundwater.

Xcel, DOC, Staff

- g. Clarify that the Commission's decision does not address the operations of the MNGP beyond 2040 which will be subject to review in future resource planning proceedings.

Staff

AND

- 6. Delegate authority to the executive secretary to report the Commission's decision to the Legislature under Minn. Stat. § 116C.83 before December 31, 2023.

Staff

Staff Recommendation: 1, 2, 4, 5 (a-d, f and g), and 6