

Direct Testimony and Schedule
Daniel S. Flo

Before the Minnesota Public Utilities Commission
State of Minnesota

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

Docket No. E002/CN-21-668
Exhibit___(DSF-1)

Environmental Impacts

March 1, 2023

Table of Contents

I. Introduction and Qualifications	1
II. Background.....	3
III. Environmental Analysis of Proposed Expansion	4
IV. Analysis of Alternatives	6
V. Permits.....	8
VI. Conclusion.....	9

Schedule

Statement of Qualifications

Schedule 1

1 **I. INTRODUCTION AND QUALIFICATIONS**

2
3 Q. PLEASE STATE YOUR NAME AND TITLE.

4 A. My name is Daniel S. Flo. I am a Senior Project Manager and the Electric
5 Power Sector Lead at Merjent, an environmental services firm headquartered
6 in Minneapolis, Minnesota. I am the Project Manager for Merjent’s team that
7 performed environmental analysis and environmental document preparation
8 on behalf of Northern States Power Company, d/b/a Xcel Energy (Xcel
9 Energy or the Company) in support of the Monticello Nuclear Generating
10 Plant (Monticello Plant or the Plant) Independent Spent Fuel Storage
11 Installation (ISFSI) Expansion Project (Project).

12
13 Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

14 A. I received a Bachelor of Science degree in 1996 from Minnesota State
15 University, Mankato with a Major in Geography and a Minor in History. I
16 then received a Juris Doctor degree from Lewis & Clark Law School in
17 Portland, Oregon in 2002. I have worked in the environmental compliance
18 field for approximately 20 years. As a Project Manager, I oversee teams of
19 specialists completing environmental surveys, environmental permit
20 applications, and environmental review documents for a wide variety of
21 energy and natural resource development projects. The bulk of my experience
22 has been to supervise the preparation of local and state route and site permit
23 applications and environmental assessments for energy generation and
24 transmission projects in Minnesota, North Dakota, South Dakota, Iowa,
25 Wisconsin, and Michigan. I have been in my current role at Merjent since
26 March of 2020, and before that I worked at Barr Engineering, Environmental

1 Resources Management (ERM), Natural Resource Group (NRG), and the
2 Minnesota Department of Commerce. Additional detail is provided in my
3 statement of qualifications, which is attached as Exhibit ___(DSF-1), Schedule 1.
4

5 Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

6 A. I am testifying on behalf of Xcel Energy.
7

8 Q. DESCRIBE YOUR RELATIONSHIP TO THE PROJECT.

9 A. My role on the Project is as the Project Manager for environmental review. In
10 that capacity, I managed the team that developed the data portion of the
11 Minnesota Scoping Environmental Assessment Worksheet (Scoping EAW)
12 and the environmental impacts section of the Certificate of Need Application
13 (Application). My work on the Project began in 2020.
14

15 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

16 A. The purpose of my Direct Testimony in this proceeding is to:

- 17 • Identify the portions of the Application that I am sponsoring;
- 18 • Describe the environmental analyses that have been conducted as part
19 of the Project;
- 20 • Describe the analysis of alternative storage locations within the
21 Monticello Plant site; and
- 22 • Describe the necessary environmental permits that will be needed for
23 the Project.

II. BACKGROUND

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Q. WHAT IS MERJENT'S ROLE ON THE PROJECT?

A. Xcel Energy retained Merjent early in the Project planning process to conduct environmental and cultural analyses, including those involved in the Scoping EAW development process, to consult with state agencies, to provide support for public meetings and public comment responses during the Certificate of Need hearing process, and to provide support as needed for the preparation of the Environmental Impact Statement (EIS) required by Minn. Stat. § 116D.04 by the Minnesota Department of Commerce (Department), including preparation of the data portion of the Scoping EAW.

Q. PLEASE IDENTIFY WHICH SECTIONS OF THE APPLICATION YOU ARE SPONSORING FOR THE RECORD.

A. I am sponsoring:

- Chapter 4.3.3 – Inducing Future Development
- Chapter 5.3 – Induced Development
- Chapter 9.2 – Alternative Sites
- Chapter 11: Parts 1 & 2 – Environmental Information and Alternative Sites.
- Chapter 12.3-12.6, 12.8 – Non-Radiological Wastes
- Chapter 13.3-13.6, 13.8 Non-Radiological Pollution Controls
- Chapter 14 – Induced Development

Q. WHAT SCHEDULES ARE YOU SPONSORING IN YOUR DIRECT TESTIMONY?

A. I am sponsoring the following schedule:

- Schedule 1 – Flo Statement of Qualifications

1 Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

2 A. My testimony is organized as follows:

- 3 • *Section III*: Environmental Analysis of Proposed Expansion
- 4 • *Section IV*: Analysis of Alternatives
- 5 • *Section V*: Permits
- 6 • *Section VI*: Conclusion

7

8 **III. ENVIRONMENTAL ANALYSIS OF**
9 **PROPOSED EXPANSION**

10

11 Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?

12 A. In this section, I describe the process used to develop the environmental
13 analyses used by Xcel Energy in designing the proposed Project and discuss
14 Xcel Energy's consultation with relevant state and federal agencies in
15 developing its proposal and the Application.

16

17 Q. PLEASE DESCRIBE THE PROCESS USED TO DEVELOP THE ENVIRONMENTAL
18 ANALYSIS PRESENTED IN THE APPLICATION FOR A CERTIFICATE OF NEED.

19 A. Xcel Energy and Merjent reviewed the scope of the proposed Project and
20 determined that, due to the minimal construction required for the Project and
21 industrial nature of the Project site, Xcel Energy could largely rely on the
22 substantial data produced by the studies conducted for the 2005 ISFSI
23 Certificate of Need proceeding, which authorized the dry cask storage system
24 at the Plant. Under Xcel Energy supervision, Merjent conducted desktop
25 environmental analyses to supplement the 2005 data where necessary. These
26 data and desktop review efforts provided information that was presented in
27 the Application and used to inform consultation with relevant agencies.

1 Q. PLEASE DESCRIBE THE DESKTOP REVIEW CONDUCTED TO SUPPLEMENT THE
2 2005 ISFSI CERTIFICATE OF NEED DATA.

3 A. Xcel Energy evaluated the potential for changed conditions in and around the
4 Monticello Plant. Merjent then reviewed various databases, including:

- 5 • The Minnesota Department of Natural Resources (MDNR) Natural
6 Heritage Information System for state-listed resources;
- 7 • The U.S. Fish and Wildlife Service (USFWS) Information for Planning
8 and Consultation (IPaC) system for federally protected species or
9 critical habitats;
- 10 • The MDNR Minnesota Climate Explorer website;
- 11 • The Minnesota Office of State Archaeologist (OSA) online database;
12 and
- 13 • The Minnesota Pollution Control Agency (MPCA) What's in My
14 Neighborhood web-mapper.

15
16 Q. WHAT AGENCIES DID XCEL ENERGY CONTACT REGARDING
17 ENVIRONMENTAL REVIEW OF THE PROJECT?

18 A. Xcel Energy contacted the City of Monticello, the Minnesota Public Utilities
19 Commission (MPUC), the Minnesota Department of Commerce – Energy
20 Environmental Review and Analysis unit (DOC-EERA), the Minnesota State
21 Historic Preservation Office (SHPO), the MDNR, and the USFWS.

22
23 Q. WHAT RESPONSE DID XCEL ENERGY RECEIVE FROM THESE AGENCIES?

24 A. SHPO agreed with Xcel Energy that no additional cultural resources work,
25 including field surveys, was necessary.

1 Q. WAS ANY OTHER INPUT RECEIVED FROM ANY FEDERAL OR STATE AGENCIES
2 OR LOCAL GOVERNMENTAL BODIES?

3 A. Yes. The United State Army Corps of Engineers (USACE) submitted a
4 comment on the Scoping EAW indicating that, based on its review of the
5 Scoping EAW, a Department of the Army permit would not be needed and
6 providing general information on the USACE's regulatory program. The
7 Minnesota Pollution Control Agency indicated that it reviewed the Scoping
8 EAW and had no comments at that time. The City of Monticello submitted
9 a comment to the Scoping EAW expressing support for the Project. The
10 MDNR recommended that Xcel Energy coordinate with the USFWS
11 regarding bald eagles nesting approximately 1,300 feet from the ISFSI in its
12 comments to DOC-EERA on the Scoping EAW.

13

14 Q. DID THE COMPANY COORDINATE WITH THE USFWS, AS SUGGESTED BY THE
15 MDNR?

16 A. Xcel Energy had already sent a letter to the USFWS and did not receive a
17 response. It is standard USFWS procedure not to respond to requests of this
18 type if no impacts are expected. In response to the MDNR's comment, the
19 Company reviewed available information regarding eagle nest proximity, and
20 determined that based on the distance of identified nests from the
21 construction site, current federal guidelines did not suggest mitigation.

22

23 IV. ANALYSIS OF ALTERNATIVES

24

25 Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?

26 A. In this section, I discuss the process and rationale behind Xcel Energy's decision

1 to forego environmental analyses of alternative storage locations within the
2 Monticello Plant site.

3
4 Q. DID XCEL ENERGY CONSIDER THE IMPACTS OF NO ACTION AND
5 ALTERNATIVE STORAGE OPTIONS FOR SPENT FUEL STORAGE?

6 A. Yes, Xcel Energy considered a no action alternative, alternatives to on-site
7 storage such as private interim storage or a federal repository, and alternative
8 storage technologies for spent fuel, other than the proposed dry cask canister
9 storage. Company witnesses Ms. Pamela Prochaska and Ms. Farah Mandich
10 address these alternatives.

11
12 Q. DID XCEL ENERGY CONSIDER CONSTRUCTING AN ALTERNATIVE STORAGE
13 FACILITY OUTSIDE OF THE MONTICELLO PLANT SITE IN MINNESOTA?

14 A. No. Pursuant to Minn. Stat. § 116C.83, subd. 4, spent nuclear fuel may be
15 stored only at the generation site.

16
17 Q. DID XCEL ENERGY CONSIDER ALTERNATIVE STORAGE LOCATIONS WITHIN
18 THE MONTICELLO PLANT SITE?

19 A. No. As part of the original ISFSI application for a Certificate of Need, Xcel
20 Energy previously undertook a study to identify locations on the Monticello
21 Plant site suitable for dry cask storage. Xcel Energy identified a total of five
22 preliminary locations for the ISFSI, and ultimately determined two were the
23 most suitable. The preferred (existing) site was chosen due to its proximity to
24 the Monticello Plant reactor building.

25
26 The alternative site would have required additional support infrastructure due
27 to its distance from the Plant, and this is still true with respect to that location.

1 Because there is sufficient room within the footprint of the existing ISFSI to
2 support the needed storage, the area was already disturbed during the initial
3 construction effort, and because the construction at the alternative site outside
4 the footprint of the existing ISFSI would result in greater environmental
5 impacts than placing the additional casks at the existing site, Xcel Energy did
6 not conduct a separate evaluation of alternative sites within the Monticello
7 Plant site.

8 9 **V. PERMITS**

10
11 Q. WHAT ENVIRONMENTAL PERMITS OR AUTHORIZATIONS ARE NECESSARY FOR
12 THE PROJECT, AND WHAT IS THE STATUS OF THOSE PERMITS OR
13 AUTHORIZATIONS?

14 A. The Project will require the Certificate of Need from the Minnesota Public
15 Utilities Commission that is the subject of the present Application, and may
16 require a building permit from the City of Monticello. The need for a building
17 permit is yet to be determined and will be addressed closer to construction.

18
19 The ISFSI expansion is needed to allow the Company to continue to operate
20 the Monticello Plant for an additional ten years. In order to extend the
21 Monticello Plant's operating life, Xcel Energy will need to obtain an Operating
22 License and Subsequent License Renewal from the Nuclear Regulatory
23 Commission (NRC).

24
25 Company witness Ms. Prochaska will address the Operating License and
26 Subsequent License Renewal process in her Direct Testimony.

VI. CONCLUSION

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3 Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

4 A. Yes, it does.

Daniel S. FloMinneapolis, MN, 55419 • 612-812-0069 • daniel.flo70@gmail.com

PROFESSIONAL PROFILE

Renewable Energy Focus**Team Building & Leadership****Project Management**

Environmental services business sector leader and project manager focused on complex renewable energy generation and electric transmission development projects. Expert in environmental permitting and regulatory compliance for wind, solar, and electric transmission development. Able to balance environmental, social, economic, and engineering issues in developing land use and environmental compliance strategies for energy resource management. Geographic expertise in the Northern Plains and Midwest. Passionate about mentoring and developing staff and being a thought leader and role model in the renewable energy sector.

EMPLOYMENT HISTORY

Merjent, Inc., Minneapolis, MN

Mar 2020 – Present

Electric Power Sector Business Lead and Senior Project Manager

As Power Sector Lead, I coordinate a team of senior staff around Power Sector marketing and business development, staffing, and strategic growth to increase Merjent's market share in low- and no-carbon energy generation and transmission projects. I support the transition of existing staff from oil & gas to renewable energy projects and help to increase opportunities for this transition. During my first three years at Merjent, the number of staff working on renewable energy and electric transmission projects, the number of renewable energy clients, and number of projects have all more than doubled.

As a Project Manager, I oversee between 5 and 10 complex environmental review and permitting projects at a time through each stage of development from feasibility to construction. Projects include new development, repowers and upgrades for wind energy, solar energy, electric transmission and nuclear power generation facilities.

Barr Engineering Co., Minneapolis, MN***Senior Environmental Consultant/Project Manager***

Mar 2016 – Mar 2020

Senior Environmental Scientist/Project Manager

Dec 2010 – Dec 2012

As a Senior Project Manager at Barr, I managed a variety of complex environmental review and permitting projects through each stage from start to finish for clients in mining, wind energy, solar energy, electric transmission and pipeline industries. I led multi-disciplinary teams, providing work direction to resources across 5 different Barr office locations plus numerous subcontractors through successful project completion.

My project management duties included oversight of state site and route permitting, environmental surveys, sound studies and agency consultations resulting in successful project completion of pipeline and wind energy facility projects in ND, SD, MN, IA and MI. My teams successfully received site permit amendments for the first two wind repowering projects under the jurisdiction of the Minnesota Public Utilities Commission.

ERM, formerly Natural Resource Group, Portland OR and Minneapolis, MN

Senior Regulatory Specialist/Project Manager

July 2013 – March 2016

Regulatory Specialist

Dec 2005 – Dec 2010

As a Project Manager at NRG, later ERM, I managed complex environmental review and permitting projects from start to finish for clients in energy industry including liquid petroleum and FERC regulated natural gas pipelines. I Oversaw project budgets of over \$10M for environmental permitting, route permitting, NEPA, subcontractor management, field surveys and constructability review.

Cardno Entrix, Portland, OR

Jan 2013 – July 2013

Senior Consultant

EDUCATION

Northwestern School of Law of Lewis & Clark College, Portland, OR

2002

Juris Doctor – Environmental Law and Land Use

Minnesota State University, Mankato, MN

1996

Bachelor of Science – Geography

TECHNICAL, COMPLIANCE AND PERMITTING EXPERTISE

- Expert Witness Testimony
- Agency Consultations
- Stakeholder Engagement
- Public Speaking
- Technical Writing
- Critical Issues Analysis / Feasibility
- NEPA
- State Environmental Review
- State Site / Route Permits
- Special Use / Conditional Use Permits
- Land Use Permitting / Zoning
- Project Planning / Scheduling

ADDITIONAL SERVICE

Minnehaha Creek Watershed District, Minnetonka, MN

2020 – Present

Member, Citizen Advisory Committee, Executive Team

American Wind Energy Association, Washington, DC

2016 – 2020

Member, Social License Committee, Siting and Environmental Compliance Subcommittee: Setbacks, Noise, Shadow Flicker, and Decommissioning

Hennepin Soil and Water Conservation District, Minneapolis, MN

2005 – 2007

Supervisor, District 2

Minneapolis Zoning Board of Adjustment, Minneapolis, MN

2004 – 2006

Board Member