



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

November 30, 2023

Mr. Shawn Hafen
Site Vice President
Northern States Power Company -
Minnesota
Monticello Nuclear Generating Plant
2807 West County Road 75
Monticello, MN 55362

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT, UNIT 1 – SECOND
LIMITED AGING MANAGEMENT AUDIT PLAN REGARDING THE
SUBSEQUENT LICENSE RENEWAL APPLICATION REVIEW
(EPID NO. L-2022-SLR-0000)

Dear Mr. Hafen:

By letter dated January 9, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23009A352), as supplemented by letters dated April 3, 2023 (ML23094A136), June 26, 2023 (ML23177A218), July 13, 2023 (ML23193B025), July 18, 2023 (ML23199A154), August 15, 2023 (ML23227A175), August 28, 2023 (ML23240A695), September 5, 2023 (ML23248A474), September 22, 2023 (ML23265A158), October 3, 2023 (ML23276B433), and November 9, 2023 (ML23313A158), Northern States Power Company, Minnesota submitted to the U.S. Nuclear Regulatory Commission (NRC or staff) an application to renew the Renewed Facility Operating License No. DPR-22 for Monticello Nuclear Generating Plant (MNGP), Unit 1.

The NRC plans to conduct a limited aging management audit from December 4, 2023 – December 15, 2023, in accordance with the enclosed regulatory audit plan. If you have any questions on this matter, please contact Marieliz Johnson, Project Manager, for the safety review of the MNGP Subsequent License Renewal Application at Marieliz.Johnson@nrc.gov, or Christopher Tyree at Christopher.Tyree@nrc.gov.

Sincerely,

/RA/

Lauren K. Gibson, Chief
License Renewal Projects Branch
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

Docket No. 50-263

Enclosure:
Aging Management Audit Plan

cc: w/encl.: ListServ

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DATED: November 30, 2023

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NAME	MJohnson	SGreen	CTyree	LGibson
DATE	11/28/2023	11/28/2023	11/30/2023	11/30/2023

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Audit Plan
Monticello Nuclear Generating Plant, Unit 1
Subsequent License Renewal Application

Aging Management Regulatory Audit
December 4, 2023 – December 15, 2023

Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Audit Plan
Monticello Nuclear Generating Plant, Unit 1
Subsequent License Renewal Application
Aging Management Regulatory Audit

1. Background

By letter dated January 9, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23009A352), as supplemented by letters dated April 3, 2023 (ML23094A136), June 26, 2023 (ML23177A218), July 13, 2023 (ML23193B025), July 18, 2023 (ML23199A154), August 15, 2023 (ML23227A175), August 28, 2023 (ML23240A695), September 5, 2023 (ML23248A474), September 22, 2023 (ML23265A158), October 3, 2023 (ML23276B433), and November 9, 2023 (ML23313A158), Northern States Power Company, Minnesota (NSPM or the applicant) submitted to the U.S. Nuclear Regulatory Commission (NRC or staff) an application to renew the Renewed Facility Operating License No. DPR-22 for Monticello Nuclear Generating Plant, Unit 1. The staff is reviewing this application in accordance with the guidance in NUREG-2192, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants," (SRP-SLR).

In accordance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," the NRC will perform an aging management regulatory audit to gain a better understanding of the applicant's aging management programs (AMPs), aging management review (AMR) items and associated bases and documentation as applicable.

2. Regulatory Audit Bases

License renewal requirements are specified in 10 CFR Part 54. Guidance is provided in the SRP-SLR and NUREG-2191, Revision 0, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report," dated July 2017.

3. Regulatory Audit Scope of Review

The staff has reviewed Xcel Energy Subsequent License Renewal Application (SLRA) Supplement 4 dated July 18, 2023 (ML23199A154), Response to Request for Additional Information Set 3 dated September 22, 2023 (ML23265A158), Response to Request for Additional Information Round 2 - Set 1 dated November 9, 2023 (ML23313A158), which are related to SLRA Section B.2.3.27, "Buried and Underground Piping and Tanks." The staff will conduct a limited audit to review the applicant's evaluations and supporting bases for its conclusions in the SLRA supplement and RAI responses related to the following topics: (1) Buried and Underground Piping and Tanks program, and (2) External Surfaces Monitoring of Mechanical Components program.

In particular, the staff seeks a further understanding for the appropriateness of using the inspection quantities and frequencies in GALL-SLR Report Table XI.M41-2 given: (a) plant-specific operating experience involving severe external corrosion of underground piping at MNGP; and (b) the deviation from GALL-SLR Report guidance at MNGP with respect to

providing external coatings for underground piping. The staff would also like more information on underground stainless steel piping in the RAD system and inspections of the underground off-gas piping or vault.

In addition, the staff is looking for information on all the in-scope systems that have below grade piping going between the reactor and turbine buildings and justifications for any of the piping that is not designated in the applicable aging management evaluation tables with an “underground” environment. The staff is also seeking information regarding the restricted access for any of the above piping, as it relates to the use of the GALL-SLR specified “scope of program” program element of the External Surfaces Monitoring of Mechanical Components program for inspection of below grade piping. Additionally, the staff would like to evaluate the current walkdown guidance in MNGP’s External Surfaces Monitoring of Mechanical Components program for any in-scope systems containing below grade piping going between the reactor and turbine buildings, as it relates to whether there is a need to include an enhancement to the program for performing the visual inspections of these components.

4. Audit Activities

For the audit, the technical staff will have technical discussions with the applicant to gain context, clarity, and information on the responses to Response to Request for Additional Information Set 3 dated September 22, 2023 (ML23265A158) and Response to Request for Additional Information Round 2 - Set 1 dated November 9, 2023 (ML23313A158) to support the staff’s review. The audit is coordinated to support the development of the reviewers’ reasonable assurance for the safety findings to be documented in the safety evaluation.

The License Renewal Projects Branch (NLRP) safety project manager will coordinate all communications with the applicant.

Following completion of the audit, an audit report will be issued.

5. Information and Other Material Necessary for the Regulatory Audit

Throughout the Aging Management Audit, the staff will review the SLRA, as supplemented and revised, the AMP basis documents and other applicant supporting documents as appropriate and requested, which have been uploaded to the ePortal.

The staff may request additional applicant documents to be added to the ePortal over the course of the audit. The staff requests for ePortal additions shall be made, as needed, to the NLRP safety project manager, who will provide the requests to the applicant.

6. Team Assignments

Team Member	Branch/Division
Brian Allik	Corrosion and Steam Generator (NCSG)/Division of New and Renewed Licenses (DNRL)
James Gavula	NCSG/DNRL
Marieliz Johnson	NLRP/DNRL
Christopher Tyree	NLRP/DNRL

7. Logistics

The Aging Management Audit will be conducted primarily using telecommunications from December 4, 2023, to December 15, 2023, Entrance and exit briefings will be held at the beginning and end of the audit via telecommunications.

8. Special Requests

The NRC staff requests the applicant to make available documents related to:

SLRA Section B.2.3.27, Buried and Underground Piping and Tanks

- documentation to support the currently proposed use of the inspection quantities and frequencies from GALL-SLR Report Table XI.M41-2, "Inspection of Buried and Underground Piping and Tanks," for underground piping at MNGP. This could include:
 - recent groundwater sampling with quantitative chloride data,
 - results from any inspections of underground piping,
 - specific grades of stainless steel used for underground piping as it relates to corrosion susceptibility

SLRA Section B.2.3.23, External Surfaces Monitoring of Mechanical Components

- list of systems with underground piping that goes between the reactor building and turbine building. For each location, include a discussion about the "scope of program" delineated in GALL-SLR Report XI.M36, "External Surfaces Monitoring of Mechanical Components" relating to "below grade components that are accessible during normal operations or refueling outages for which access is not restricted."
- implementing document(s) within the program basis document (Report No. XCELMO00017-REPT-083, Section 7), that currently inspect below grade piping within the wall penetrations for piping between the reactor building and turbine building. For each of the above implementing documents, provide documentation of the previous inspection results.

9. Deliverables

An audit report should be issued to the applicant within 90 days from the end of the Aging Management Audit.