

February 14, 2020

L-XE-20-002  
10 CFR 50.55a

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Monticello Nuclear Generating Plant  
Docket No. 50-263  
Renewed Facility Operating License No. DPR-22

Prairie Island Nuclear Generating Plant, Units 1 and 2  
Docket Nos. 50-282 and 50-306  
Renewed Facility Operating License Nos. DPR-42 and DPR-60

- References: 1) NSPM to NRC letter, "Proposed Alternative to Utilize ASME Code Case N 786-3, 'Alternative Requirements for Sleeve Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping,' and ASME Code Case N 789-3, 'Alternative Requirements for Pad Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping for Raw Water Service,'" dated August 16, 2019 (ADAMS Accession No. ML19231A224)
- 2) NRC to NSPM email, "Request for Additional Information RE: Monticello and Prairie Island alternative requests to adopt Code Cases N-786-3 and N-789-3 (EPIDS: L-2019-LLR-0078 and L-2019-LLR-0079)," dated February 4, 2020 (ADAMS Accession No. ML20035F155)

Response to a Request for Additional Information for Proposed 10 CFR 50.55a(z)(2) Alternatives to Utilize ASME Code Case N-786-3, "Alternative Requirements for Sleeve Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping," and ASME Code Case N-789-3, "Alternative Requirements for Pad Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping for Raw Water Service"

Pursuant to 10 CFR 50.55a(z)(2), "Alternatives to codes and standards requirements," the Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (hereafter "NSPM"), requested in Reference 1 authorization for two alternatives as specified under 10 CFR 50.55a, "Codes and standards," for the Monticello Nuclear Generating Plant (MNGP) and the Prairie Island Nuclear Generating Plant (PINGP), Units 1 and 2. These 10 CFR 50.55a(z)(2) alternatives are proposed to be utilized in lieu of certain American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BP&V) Code, Section XI, Article IWA-4000 requirements. These alternatives are specified in:

- Code Case N-786-3, "Alternative Requirements for Sleeve Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping"
- Code Case N-789-3, "Alternative Requirements for Pad Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping for Raw Water Service"

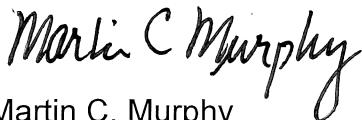
The basis for application of these alternatives is that compliance with the specified ASME Code, Section XI, Article IWA-4000, requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

On February 4, 2020, the NRC transmitted a request for additional information to NSPM (Reference 2). This letter provides the response to that request.

If there are any questions or if additional information is needed, please contact Mr. Richard Loeffler at (612) 330-8981 or [Richard.Loeffler@xenuclear.com](mailto:Richard.Loeffler@xenuclear.com).

#### Summary of Commitments

This letter makes no new commitments and no revisions to existing commitments.



Martin C. Murphy  
Director, Nuclear Licensing and Regulatory Services  
Northern States Power Company – Minnesota

Enclosure

cc: Administrator, Region III, USNRC  
Project Manager, Monticello and Prairie Island, USNRC  
Resident Inspector, Monticello, USNRC  
Resident Inspector, Prairie Island, USNRC

**Monticello Nuclear Generating Plant (MNGP) – RR-013  
Prairie Island Nuclear Generating Plant (PINGP) – 1-RR-5-11 and 2-RR-5-11  
Request to Use ASME Code Case N-786-3**

**And**

**Monticello Nuclear Generating Plant (MNGP) – RR-014  
Prairie Island Nuclear Generating Plant Units 1 and 2 (PINGP) –  
1-RR-5-12 and 2-RR-5-12  
Request to Use ASME Code Case N-789-3  
in Accordance With 10 CFR 50.55a(z)(2)**

Pursuant to 10 CFR 50.55a(z)(2), “Alternatives to codes and standards requirements,” the Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (hereafter “NSPM”), requested authorization of two alternatives as specified under 10 CFR 50.55a, “Codes and standards,” for the Monticello Nuclear Generating Plant (MNGP) and the Prairie Island Nuclear Generating Plants (PINGP), Units 1 and 2. These 10 CFR 50.55a(z)(2) alternatives are proposed to be utilized in lieu of certain American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BP&V) Code, Section XI, Article IWA-4000 requirements. These alternatives are specified in:

- Code Case N-786-3, “Alternative Requirements for Sleeve Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping,” which provides guidance for installation of permanent or temporary reinforcing sleeves for mitigating degradation such as that from erosion, corrosion, cavitation, or pitting in Class 2 and Class 3 moderate-energy piping.
- Code Case N-789-3, “Alternative Requirements for Pad Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping for Raw Water Service,” which provides guidance for repair or replacement of degraded Class 2 and Class 3 moderate-energy carbon steel raw water piping.

On February 4, 2020, the NRC transmitted via email the following request for additional information to NSPM.

**RAI-1**

**BACKGROUND**

The regulations in 10 CFR 50.55a(z) allow the NRC staff to authorize alternatives to the requirements in paragraphs (b) through (h) of 10 CFR 50.55a, but do not allow the staff to approve alternatives to requirements not currently in these paragraphs. The staff does not generally approve alternatives to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a and the ASME BPV Code beyond the current inservice inspection or test intervals, unless specific circumstances would justify a longer interval. The staff can approve alternatives for

the next inservice inspection or test interval when it is near the end of the current interval and the applicable requirements for the next interval are known (e.g., see 10 CFR 50.55a(g)(4)(ii)). Section 6 of each of the proposed alternatives requested a duration of the fifth ISI interval at each reactor unit of PINGP and MNGP or until such time as the NRC approves Code Cases N-786-3 and N-789-3 in Regulatory Guide 1.147. However, the application does not identify the ASME BPV Code edition and addenda applicable to future 10-year inservice inspection intervals. Thus, the request has not demonstrated that the proposed alternative is limited to the current requirements in paragraphs (b) through (h) of 10 CFR 50.55a.

### REQUEST

- a. Clarify whether the duration of the proposed alternative is the end of the fifth interval or the approval of the relevant Code Case, whichever occurs first.
- b. If the request is intended to extend into the subsequent interval identify the specific ASME Code edition and addenda applicable to future 10-year inservice inspection intervals in which the proposed alternative will be used. In addition, provide a basis for each plant where use of the alternative is requested beyond the current interval.

### RESPONSE

- a. The duration of the proposed alternatives is until the end of the respective Fifth 10-year Inservice Inspection interval for the MNGP and PINGP, Units 1 and 2, or the approval of the relevant Code Case, whichever occurs first. NSPM's proposed alternative request is not intended to extend into the subsequent interval.
- b. Not applicable based on the answer to RAI 1.a.