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L-PI-15-011  
10 CFR 50.55a

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

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

10 CFR 50.55a Request for Approval to Use a Portion of a Subsequent Edition and Addenda of ASME Boiler and Pressure Vessel Code, Section XI, for the Inservice Inspection Program Fourth Ten-Year Interval

Pursuant to 10 CFR 50.55a(g)(4)(iv), Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (hereafter "NSPM"), hereby requests NRC approval to use a portion of a subsequent edition and addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, incorporated by reference in 10 CFR 50.55a(a)(1)(ii), for the Prairie Island Nuclear Generating Plant (PINGP) Inservice Inspection (ISI) program fourth ten-year interval. NSPM requests to use Mandatory Appendix VIII "Performance Demonstration for Ultrasonic Examination Systems" (Appendix VIII) of the 2007 Edition through 2008 Addenda of ASME Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components" with all related requirements. The currently applicable code of record for the PINGP ISI program fourth ten-year interval is the 1998 Edition through 2000 Addenda. The fourth ten-year inspection interval is effective December 21, 2004 through December 20, 2014 with extension through the end of the Unit 2 refueling outage 2R29 as allowed by IWA-2430(d).

As identified during the fall 2014 NRC Baseline Inservice Inspection (Procedure 71111.08), a search unit cable used in the Unit 1 reactor vessel weld ultrasonic examinations had been substituted without requalification of the examination procedure as required by 2000 Addenda Appendix VIII subarticle VIII-3140. Although the affected reactor vessel examinations are complete, they have not yet been credited to the ISI program.

The 2008 Addenda Appendix VIII subsubarticle VIII-4110 allows replacement of examination system components (including essential variables such as search unit

cables) without requalification when the conditions of the subsubarticle are met including evaluation using Appendix VIII Supplement 1.

Approval to use the 2007 Edition through 2008 Addenda of Appendix VIII will provide a means to establish qualification of the examination procedure used for both the fall 2014 Unit 1 reactor vessel examinations and fall 2015 Unit 2 reactor vessel examinations.

NSPM requests approval of this request by August 6, 2015, to support preparations for the Unit 2 reactor vessel examination.

If there are any questions or if additional information is needed, please contact Ben Hammargren at 651-267-6830.

Summary of Commitments

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



Kevin Davison  
Site Vice President, Prairie Island Nuclear Generating Plant  
Northern States Power Company- Minnesota

Enclosures (1)

cc: Administrator, Region III, USNRC  
Project Manager, PINGP, USNRC  
Resident Inspector, PINGP, USNRC

## Enclosure

10 CFR 50.55a Request 1-RR-4-11, Rev. 0 (PINGP Unit 1)

10 CFR 50.55a Request 2-RR-4-11, Rev. 0 (PINGP Unit 2)

### Request in Accordance with 10 CFR 50.55a(g)(4)(iv) for use of a portion of a subsequent ASME Code Edition and Addenda

#### 1. American Society of Mechanical Engineers (ASME) Code Component(s) Affected

Code Class: 1  
Reference: IWB-2500  
Examination Category: B-A and B-D, Pressure Retaining Welds in Reactor Vessel and Full Penetration Welded Nozzles in Vessels  
Item Number: B1.11, B1.21, B1.30, B3.90, B3.100  
Description: Reactor Vessel Shell Welds Circumferential, Reactor Vessel Head Welds Circumferential, Reactor Vessel Shell-to-Flange Weld, Reactor Vessel Nozzle to Vessel Welds, and Reactor Vessel Nozzle Inside Radius Section  
Component Number: 157-051 and 257-051

#### 2. Applicable Code Edition and Addenda

Licensees are required per 10 CFR 50.55a(g)(4)(ii) to comply with the requirements of the latest edition and addenda of the Code incorporated by reference in 10 CFR 50.55a(a) 12 months before the start of the ten-year inspection interval, subject to the conditions in 10 CFR 50.55a(b). The Prairie Island Nuclear Generating Plant (PINGP), Units 1 and 2, is in the third period of the Fourth 10-Year Inservice Inspection (ISI) Program interval, and is required to follow the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," (ASME Section XI), 1998 Edition through the 2000 Addenda. The fourth 10-Year inspection interval is effective December 21, 2004 through December 20, 2014 with extension through the end of the Unit 2 refueling outage 2R29 as allowed by IWA-2430(d).

#### 3. Proposed Subsequent Code Edition and Addenda (or Portion)

In accordance with the Code of Federal Regulations 10 CFR 50.55a(g)(4)(iv), NSPM requests approval for PINGP Units 1 and 2 to use the 2007 Edition with 2008 Addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components", Mandatory Appendix VIII Performance Demonstration for Ultrasonic Examination Systems, with all related requirements.

The 2007 Edition with 2008 Addenda is incorporated by reference in 10 CFR 50.55a(1)(ii). The edition and addenda were first incorporated into the code in 10 CFR 50.55a(b)(2) as documented in Federal Register 76 FR 36232.

#### **4. Related Requirements**

10CFR 50.55a(b)(2) includes the following modifications or limitations that are applicable to the 2007 Edition with 2008 Addenda of ASME Section XI, Appendix VIII:

(xiv) Appendix VIII personnel qualification. All personnel qualified for performing ultrasonic examinations in accordance with Appendix VIII shall receive 8 hours of annual hands-on training on specimens that contain cracks. Licensees applying the 1999 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section may use the annual practice requirements in VII-4240 of Appendix VII of Section XI in place of the 8 hours of annual hands-on training provided that the supplemental practice is performed on material or welds that contain cracks, or by analyzing prerecorded data from material or welds that contain cracks. In either case, training must be completed no earlier than 6 months prior to performing ultrasonic examinations at a licensee's facility.

(xvii) Reconciliation of quality requirements. When purchasing replacement items, in addition to the reconciliation provisions of IWA-4200, 1995 Addenda through 1998 Edition, the replacement items must be purchased, to the extent necessary, in accordance with the licensee's quality assurance program description required by 10 CFR 50.34(b)(6)(ii).

#### **5. Duration of Proposed Request**

NSPM requests NRC approval to use the 2007 Edition with 2008 Addenda of ASME Section XI, Appendix VIII for the remainder of the fourth 10-Year Inservice Inspection Program for PINGP Units 1 and 2. The fourth 10-Year inspection interval is effective for Units 1 and 2 from December 21, 2004 through December 20, 2014, with extension through the end of the Unit 2 refueling outage 2R29 as allowed by IWA-2430(d).