



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

July 12, 2012

Mr. Mark A. Schimmel
Site Vice President
Monticello Nuclear Generating Plant
Northern States Power Company - Minnesota (NSPM)
2807 West County Road 75
Monticello, MN 55362-9637

SUBJECT: MONTICELLO NUCLEAR GENERATION PLANT (MNGP) – APPROVAL OF
RELIEF REQUEST RR-007 FOR THE FIFTH 10-YEAR INSERVICE
INSPECTION INTERVAL (TAC ME8157)

Dear Mr. Schimmel:

By letter dated September 28, 2011, as revised by letter dated May 16, 2012, Northern States Power Company - Minnesota (NSPM) submitted, among other things, Relief Request RR-007 pursuant to 10 CFR 50.55a(g)(4)(iv). NSPM requested, for Class MC pressure retaining components, to use a subsequent edition/addenda (i.e., 2007 edition with 2008 addenda) of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (B&P Code), Section XI, in lieu of the current IWE program code-of-record (2001 edition with 2003 addenda) only for repair/replacement related activities at MNGP.

The NRC staff completed its review of Relief Request RR-007, and has presented its review results in the enclosed safety evaluation. The NRC staff concludes that NSPM's proposed request to use the 2007 edition with 2008 addenda of the ASME Code, Section XI, for repair/replacement activities, including post-repair pressure testing, of Class MC components at MNGP is consistent with all related requirements and associated regulatory conditions set forth in 10 CFR 50.55a(b). Therefore, pursuant to 10 CFR 50.55a(g)(4)(iv), the NRC staff approves the use of the 2007 edition with the 2008 addenda of the ASME Code, Section XI, for repair/replacement and associated activities for Class MC components at MNGP. Since the proposed common repair/replacement program at MNGP resides within the ISI interval for Class 1, 2 and 3 components, the request is approved for the fifth 10-Year ISI interval beginning September 1, 2012.

T. J. O'Connor

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Should you have any questions, please contact Mr. Peter Tam, the MNGP Project Manager, at 301-415-1451.

Sincerely,



Istvan Frankl, Acting Chief
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-263

Enclosure: Safety Evaluation

cc w/encl: Distribution via ListServ

M. A. Schimmel

- 2 -

Should you have any questions, please contact Mr. Peter Tam, the MNGP Project Manager, at 301-415-1451.

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/RA/

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUEST RR-007 FOR RENEWED FACILITY OPERATING LICENSE NO. DPR-22

MONTICELLO NUCLEAR GENERATING PLANT

FIFTH INSERVICE INSPECTION INTERVAL

NORTHERN STATES POWER COMPANY – MINNESOTA

DOCKET NO. 50-263

1.0 INTRODUCTION

By letter dated September 28, 2011 (Reference 1), as revised by letter dated May 16, 2012 (Reference 2), Northern States Power Company - Minnesota (NSPM, the licensee) submitted, among other things, Relief Request RR-007 pursuant to 10 CFR 50.55a(g)(4)(iv). RR-007 requested, for Class MC pressure retaining components, to use a subsequent edition/addenda (i.e., 2007 edition with 2008 addenda) of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (B&P Code), Section XI, in lieu of the current IWE program code-of-record (2001 edition with 2003 addenda) only for repair/replacement related activities at Monticello Nuclear Generating Plant (MNGP). RR-007 applies to the fifth Inservice Inspection (ISI) 10-year interval that begins on September 1, 2012. The ISI interval for Class MC components (IWE Program) and the ISI interval for Class 1, 2 and 3 components are not aligned at MNGP. The approval of the subsequent edition and addenda of the ASME code for Class MC components would allow NSPM to maintain a single common repair/replacement program for Class 1, 2, 3, and MC components, with the common program residing in the fifth ISI interval for Class 1, 2 and 3 components.

2.0 REGULATORY EVALUATION

Pursuant to 10 CFR 50.55a(g)(4), the ISI of Class MC pressure retaining components and their integral attachments must meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in Section XI of the ASME Code, and its editions/addenda incorporated by reference in paragraph (b)(2) and subject to the conditions listed in paragraphs (b)(2)(vi), (b)(2)(viii) and (b)(2)(ix) of 10 CFR 50.55a. Paragraph (g)(4)(ii) of 10 CFR 50.55a requires that inservice examination of components and system pressure tests conducted during successive 120-month inspection intervals must comply with the requirements of the latest edition and addenda of the Code incorporated by reference in paragraph (b) of this section 12 months prior to the start of the 120-month inspection interval, subject to the conditions listed in paragraph (b) of this section. Currently, 10 CFR 50.55a(b)(2) incorporates by reference the ASME Code, Section XI, Division 1, 1970 edition through the 1976 Winter

ENCLOSURE

Addenda, and the 1977 Edition through 2007 Edition with the 2008 Addenda, subject to certain conditions.

The requirement at 10 CFR 50.55a(g)(4)(iv) states that:

Inservice examination of components and system pressure tests may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in paragraph (b) of this section, subject to the conditions listed in paragraph (b) of this section, and subject to Commission approval. Portions of editions or addenda may be used provided that all related requirements of the respective editions or addenda are met.

The repair, replacement, and modification of plant components are not explicitly mentioned in 10 CFR 50.55a(g)(4) and associated subparagraphs. However, these activities are specifically mentioned in ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components." As clarified in NRC Regulatory Issue Summary (RIS) 2004-16, "Use of Later Editions and Addenda to ASME Code Section XI for Repair/Replacement Activities," the NRC staff maintains that repair/replacement activities are not separate and distinct from, but are included under, inservice examinations. Therefore, the requirements of 10 CFR 50.55a(g)(4)(iv) are applicable to repair/replacement activities.

Pursuant to 10 CFR 50.55a(g)(4)(iv), the licensee requested approval, for Class MC components, to use a subsequent edition/addenda (i.e., 2007 edition with 2008 addenda) of the ASME Code, Section XI, from the current IWE Program code-of-record (2001 edition with 2003 addenda) for only repair/replacement related activities, including post-repair pressure testing. The licensee has submitted this request in accordance with the guidelines in RIS 2004-16.

3.0 TECHNICAL EVALUATION

Relief Request RR-007 applies to Class MC pressure retaining components in the ASME Section XI IWE Program (i.e., Containment Inservice Inspection (CISI) Program) at MNGP subject to Repair/Replacement activities.

3.1 Applicable Code Edition and Addenda

ISI related activities, except repair/replacement activities, for Class MC Components are currently performed at MNGP in accordance with the 2001 Edition with the 2003 Addenda of ASME Code, Section XI, Subsection IWE for the Second 10-Year IWE (the Containment Inservice Inspection, abbreviated as CISI) Interval that is scheduled to end September 8, 2018.

Repair/Replacement activities for Class MC Components (IWE) are currently being performed in accordance with the 2001 Edition with no addenda of ASME Code, Section XI, pursuant to Relief Request No. 7 authorized and aligned with the Fourth 10-Year ISI Interval (for Class 1, 2 and 3 components) by NRC Safety Evaluation dated October 3, 2003 (Accession No. ML032040157).

[Note: Class MC components at MNGP are currently in the Second 10-Year IWE program (CISI) interval that ends September 8, 2018. Class 1, 2 and 3 components at MNGP are currently in the Fourth 10-Year ISI Interval and the new Fifth 10-year ISI interval is scheduled to

begin September 1, 2012. Pursuant to 10 CFR 50.55a(g)(4)(ii), the code-of-record for the Fifth ISI interval will be the 2007 edition with 2008 addenda of ASME Code, Section XI.]

3.2 Proposed Subsequent Code Edition and Addenda (or Portion)

The licensee stated that the ISI program for Class 1, 2 and 3 components at MNGP, in accordance with ASME Code Section XI, is currently being updated for the Fifth 10-Year ISI Interval in accordance with the 10-year code edition/addenda update requirements of 10 CFR 50.55a(g)(4)(ii) to the 2007 Edition with the 2008 Addenda with a scheduled implementation start date of September 1, 2012. The MNGP IWE (CISI) Program (applicable to Class MC components) is currently in the second period of its Second 10-Year ISI Interval, which is not scheduled to be updated until September 9, 2018.

The licensee stated that the MNGP ISI program and the IWE (CISI) program interval start and end dates are not aligned. The MNGP new ISI interval begins on September 1, 2012 and is being updated to the 2007 Edition with the 2008 Addenda of ASME Section XI, whereas the IWE program will continue to meet the 2001 Edition with the 2003 Addenda through September 8, 2018. The one ASME Section XI program that is common to both ISI and IWE (CISI) programs is the Repair/Replacement (R/R) program. If the MNGP R/R program for both ISI and IWE are not aligned to the same edition and addenda of Section XI, two separate program documents with implementing procedures will be required.

Pursuant to 10 CFR 50.55a(g)(4)(iv) and following the guidance of RIS 2004-16, "Use of Later Editions and Addenda to ASME Code Section XI for Repair/Replacement Activities," the licensee proposes to use the 2007 Edition with 2008 Addenda of ASME Code Section XI for the performance of repair/replacement and associated activities of Class MC items within the scope of the IWE program, including requirements for post repair/replacement pressure testing. The licensee stated that this request does not apply to the selection, planning, or scheduling of IWE examinations as defined in IWE-2500. The licensee clarified that IWE examinations, other than repair/replacement related activities, of Class MC components at MNGP will continue to be selected, planned, and scheduled in accordance with its present code-of-record for the IWE program (i.e. 2001 edition with 2003 addenda of Section XI). IWE-3114 requires that the repair/replacement activity and reexamination shall comply with the requirements of IWA-4000. In implementing this proposal, the licensee stated that it will also comply with all regulatory conditions specified in 10 CFR 50.55a that are applicable to IWA-4000 and IWE-5000 of the 2007 edition with 2008 addenda.

3.3 Related Requirements

The licensee stated that it will comply with all related requirements associated with the proposed use of the 2007 Edition/2008 Addenda of ASME Code, Section XI, for the performance of repair/replacement activities of Class MC components within the scope of the IWE program, as described below.

- The licensee stated that it will utilize the appropriate portions of "Articles" (e.g. IWA-1000, IWA-2000) from each "Subsection" (e.g. IWA, IWE), including acceptance standards, of the 2007 Edition/2008 Addenda that are required for the performance of repair/replacement activities. The licensee stated that it will also use all "Mandatory

Appendices” of the 2007 Edition with the 2008 Addenda that are referenced by IWA-4000.

- IWA-4550 requires Class MC items subjected to repair/replacement activities be tested in accordance with IWE-5000. The licensee stated that it will utilize the 2007 Edition with 2008 Addenda, along with the applicable regulatory conditions of 10 CFR 50.55a(b)(2)(ix)(J), when performing post repair/replacement pressure testing of Class MC items.
- With regard to the performance of routine IWE examinations, the licensee stated that it will continue to select, plan, and schedule IWE inspection activities, as specified in IWA-2500 and IWE-2500 in accordance with its current code-of-record (i.e., the 2001 edition with 2003 addenda of Section XI) for the Second Interval IWE Program. To ensure that all related requirements are met, the licensee stated that it will also continue to comply with applicable portions of IWA-2000 and all provisions of IWE-1000, IWE-2000 and corresponding IWE-3000 acceptance standards from its current code-of-record for the Secondary Interval IWE Program along with applicable regulatory conditions.

3.4 Duration of Proposed Request

The timeframe affected by this request is based on the Repair/Replacement Program maintained within the fifth interval of the ISI Program. Therefore, the duration of this request will be for the entire fifth 10-year interval of the MNGP ISI Program scheduled to begin on September 1, 2012.

3.5 NRC Staff Evaluation

The NRC staff evaluated the licensee’s request to use criteria contained in 10 CFR 50.55a(g)(4)(iv), which states that inservice examination of components and system pressure tests may meet the requirements set forth in subsequent editions and addenda of the ASME Code provided certain criteria (see Section 2.0 above) are satisfied. The licensee proposed to use the 2007 edition with 2008 addenda of the ASME Code, Section XI, for the performance of activities related to repair/replacement, including post-repair pressure testing, of Class MC pressure retaining components at MNGP.

The first criterion is that the proposed edition and addenda is incorporated by reference in 10 CFR 50.55a(b). Currently, Section 50.55a(b)(2) incorporates by reference the ASME Code, Section XI, Division 1, 1970 edition through the 1976 Winter Addenda, and the 1977 Edition through 2007 Edition with the 2008 Addenda, subject to certain conditions. The 2007 Edition with the 2008 Addenda proposed to be used by the licensee is incorporated by reference in 10 CFR 50.55a(b)(2) with certain conditions and is, therefore, acceptable for use.

The second criterion is that the applicable regulatory conditions listed in 10 CFR 50.55a(b) are satisfied for the specific use of the proposed subsequent ASME Code edition and addenda. In its May 16, 2012 submittal (Reference 2), the licensee identified and committed to comply with all applicable regulatory conditions specified in 10 CFR 50.55a(b) with regard to the use of the 2007 Edition with the 2008 Addenda of the ASME Code, Section XI, in the repair/replacement program. Therefore, the NRC staff finds that the second criterion has been satisfied.

The third criterion is that if portions of subsequent code editions or addenda are used, all related requirements of the respective editions or addenda must be met. The NRC staff finds acceptable that the licensee has listed all related requirements in the 2007 edition with the 2008 addenda of ASME Code, Section XI, relevant to repair/replacement activities of Class MC components, including post-repair pressure testing.

Based on the above discussion, the NRC staff finds that the licensee's Relief Request RR-007 to use the 2007 edition with 2008 addenda of the ASME Code, Section XI, for repair/replacement activities of Class MC pressure retaining components satisfies the criteria of 10 CFR 50.55a(g)(4)(iv) for approval.

4.0 CONCLUSION

The NRC staff concludes that the licensee's proposed request to use the 2007 edition with 2008 addenda of the ASME Code, Section XI, for repair/replacement activities, including post-repair pressure testing, of Class MC components at MNGP is consistent with all related requirements and associated regulatory conditions set forth in 10 CFR 50.55a(b). Therefore, pursuant to 10 CFR 50.55a(g)(4)(iv) the NRC staff approves the use of the 2007 edition with the 2008 addenda of the ASME Code, Section XI, for repair/replacement and associated activities for Class MC components at MNGP. Since the proposed common repair/replacement program at MNGP resides within the ISI interval for Class 1, 2 and 3 components, the request is approved for the fifth 10-year ISI interval beginning September 1, 2012.

5.0. REFERENCES

- (1) Letter, T. J. O'Connor (NSPM) to NRC, September 28, 2011, regarding 10 CFR 50.55a relief requests associated with the fifth ISI interval (Accession No. ML112720147)
- (2) Letter, T. J. O'Connor (NSPM) to NRC, May 16, 2012, providing revised information regarding Relief Request RR-007 conveyed by the September 28, 2011, submittal (Accession No. ML12138A092)

Principal Contributor: George Thomas, NRR

Date: July 12, 2012