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

April 15, 2016

Mr. Shane M. Marik
Site Vice President and
Chief Nuclear Officer
Omaha Public Power District
Fort Calhoun Station
9610 Power Lane, Mail Stop FC-2-4
Blair, NE 68008

SUBJECT: FORT CALHOUN STATION, UNIT NO. 1 – REQUEST TO USE A PORTION OF A LATER EDITION OF THE ASME CODE, SECTION XI (CAC NO. MF7129)

Dear Mr. Marik:

By letter dated November 24, 2015, Omaha Public Power District (the licensee) submitted a request to use a portion of a later edition of the American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code* (Code), Section XI to the U.S. Nuclear Regulatory Commission (NRC) for the remainder of the fourth 10-year inservice inspection (ISI) program interval at Fort Calhoun Station, Unit No. 1 (FCS). Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55(g)(4)(iv), the licensee requested to use Mandatory Appendix I, I-2600 (Appendix VIII Examination) from the 2007 Edition through the 2008 Addenda of the ASME Code, Section XI, in lieu of Mandatory Appendix I, I-2000 from the 1998 Edition through 2000 Addenda, for applicable components for the remainder of the fourth ISI interval.

The NRC staff has reviewed the subject request and concludes, as set forth in the enclosed safety evaluation, that the use of subsequent editions and addenda of the ASME Code, Section XI requirements is acceptable. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv). Therefore, the NRC staff authorizes the use of a portion of the 2007 Edition through 2008 Addenda of the ASME Code applicable to the components where the conditions of I-2600 are acceptable, for the remainder of the fourth 10-year ISI program interval at FCS, which will end on June 6, 2017.

All other ASME Code, Section XI, requirements for which relief was not specifically requested and authorized herein by the staff remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

If you have any questions, please contact Fred Lyon at 301-415-2296 or via e-mail at Fred.Lyon@nrc.gov.

Sincerely,

Robert J. Pascarelli, Chief
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-285

Enclosure:
Safety Evaluation

cc w/encl: Distribution via Listserv

UNITED STATES
NUCLEAR REGULATORY COMMISSION
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST TO USE A PORTION OF A LATER EDITION OF THE ASME CODE, SECTION XI

FOR THE FOURTH 10-YEAR INSERVICE INSPECTION PROGRAM INTERVAL

OMAHA PUBLIC POWER DISTRICT

FORT CALHOUN STATION, UNIT NO. 1

DOCKET NO. 50-285

1.0 INTRODUCTION

By letter dated November 24, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15329A341), Omaha Public Power District (OPPD, the licensee) requested to use a portion of the requirements of subsequent editions and addenda of the American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code* (Code). The request pertains to rules for inservice inspection (ISI) of nuclear power plant components at the Fort Calhoun Station, Unit No. 1 (FCS).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), the licensee requested to implement a portion of requirements of the 2007 Edition through 2008 Addenda of the ASME Code, Section XI, Mandatory Appendix I, I-2600, "Appendix VIII Examination," subject to conditions listed in 10 CFR 50.55a(b).

2.0 REGULATORY REQUIREMENTS

The U.S. Nuclear Regulatory Commission (NRC) staff notes that in its request, the licensee proposes an alternative to the requirements of the ASME Code (i.e., the use of a later edition of the Code in accordance with 10 CFR 50.55a(g)(4)(iv)). The staff also notes that 10 CFR 50.55a(g)(4)(iv) states:

> 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 (a) 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.

Given that the licensee has proposed the use of a later edition of the ASME Code pursuant to 10 CFR 50.55a(g)(4)(iv) and that 10 CFR 50.55a(g)(4)(iv) specifically permits the use of later editions of the ASME Code subject to technical criteria which will be considered below, the NRC

staff finds that regulatory authority exists to authorize the use of a subsequent edition of the ASME Code, as requested by the licensee.

3.0 TECHNICAL EVALUATION

3.1 Component Affected

This change may be applied to examinations where the alternative conditions of I-2600 are applicable.

3.2 Applicable Code Edition and Addenda

The Code of record for the fourth 10-year ISI interval is the 1998 Edition through 2000 Addenda of the ASME Code.

3.3 Duration of Request

The licensee submitted this request for the remainder of the fourth 10-year ISI interval at FCS, which commenced on October 31, 2003, and will end on June 6, 2017.

3.4 ASME Code Requirement

The 1998 Edition through 2000 Addenda of the ASME Code, Section XI, IWA-2232, requires ultrasonic examinations to be conducted in accordance with Appendix I, Ultrasonic Examinations. Appendix I, I-2000 requires the performance of ultrasonic examinations in accordance with Appendix III, Appendix V, Article 4 or Appendix VIII.

3.5 Request

The licensee requested the use of Mandatory Appendix I, I-2600, Appendix VIII Examination of the 2007 Edition through 2008 Addenda of the ASME Code, Section XI, for the remainder of the current interval.

3.6 Basis for Request

The licensee stated that industry experience has demonstrated that use of Appendix VIII techniques for detection and characterization of flaws is equal to or surpasses the requirements of the ASME Code, Section XI, Appendix III or Section V, Article 4.

3.7 NRC Staff Evaluation

The NRC staff has evaluated this request pursuant to 10 CFR 50.55a(g)(4)(iv). The regulations in 10 CFR 50.55a(g)(4)(iv) contains four criteria, which must be met prior to use of a subsequent edition of the ASME Code. These criteria are;

1. The proposed edition/addendum of the ASME Code is incorporated by reference in 10 CFR 50.55a(b).

2. The proposed edition/addendum of the ASME Code is subject to the conditions listed in 10 CFR 50.55a(b).

3. The licensee shall request Commission approval to use the proposed edition/addendum of the ASME Code.

4. If only portions of editions or addenda are to be used, all related requirements of the respective editions or addenda must be met.

In evaluating the first criterion (i.e., that the proposed edition/addendum of the Code has been incorporated by reference in 10 CFR 50.55a(b)), the NRC staff notes that 10 CFR 50.55a(b)(2) incorporates by reference the ASME Code, Section XI, from the 1970 Edition through the 1976 Winter Addenda, and the 1977 Edition through the 2007 Edition with the 2008 Addenda, which was proposed by the licensee. Therefore, the NRC finds that the first criterion has been satisfied.

In evaluating the second criterion (i.e., that the conditions listed in 10 CFR 50.55a(b) are satisfied for the specific proposed subsequent edition and addenda of the ASME Code, Section XI), the NRC staff notes that 10 CFR 50.55a(b) has no conditions pertaining to the application of Mandatory Appendix I, I-2600. Therefore, the NRC staff finds that the second criterion has been satisfied.

In evaluating the third criterion (i.e., that the licensee shall request Commission approval to use the proposed edition/addendum of the ASME Code), the NRC staff notes that the licensee's relief request constitutes a request to the Commission for approval to use a subsequent edition/addendum of the ASME Code. Therefore, the NRC staff finds that the third criterion has been satisfied.

In evaluating the fourth criterion (i.e., that if portions of subsequent editions or addenda of the ASME Code, Section XI, are used, all related requirements of the respective editions or addenda must be met), the NRC staff is satisfied that the licensee has listed all related requirements. For the portion of the 2007 Edition through 2008 Addenda that is to be used, the related Section XI, Mandatory Appendix I, I-3000 Examination Coverage requirements will be used in conjunction with the components examined in accordance with I-2600. Therefore, the NRC staff finds that the fourth criterion has been satisfied.

Therefore, the NRC staff finds that the licensee has satisfied all the requirements in 10 CFR 50.55a(g)(4)(iv). The NRC staff finds that the use of a portion of the 2007 Edition through 2008 Addenda of the ASME Code applicable to the components where the conditions of I-2600 is acceptable.

4.0 CONCLUSION

As set forth above, the NRC staff determines that the use of subsequent editions and addenda of the ASME Code, Section XI, requirements is acceptable. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv). Therefore, the NRC staff authorizes use of a portion of the 2007 Edition through 2008 Addenda of the ASME Code applicable to the components where the

conditions of I-2600 are acceptable, for the remainder of the fourth 10-year ISI program interval at FCS, which will end on June 6, 2017.

All other ASME Code, Section XI, requirements for which relief was not specifically requested and authorized herein by the staff remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

Principal Contributor: D. Becker, NRR/DE/EPNB

Date: April 15, 2016

If you have any questions, please contact Fred Lyon at 301-415-2296 or via e-mail at Fred.Lyon@nrc.gov.

Sincerely,

/RA/

Robert J. Pascarelli, Chief
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-285

Enclosure:
Safety Evaluation

cc w/encl: Distribution via Listserv

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ADAMS Accession No. ML16104A074 *email dated April 12, 2016

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DATE	4/15/16	4/14/16	4/12/16	4/15/16	4/15/16

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