



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

February 12, 2016

Mr. Oscar A. Limpias
Vice President-Nuclear and CNO
Nebraska Public Power District
72676 648A Avenue
Brownville, NE 68321

SUBJECT: COOPER NUCLEAR STATION - REQUEST FOR RELIEF RC3-01 FOR
ALIGNMENT OF INSERVICE INSPECTION AND CONTAINMENT INSERVICE
INSPECTION (CAC NO. MF6333)

Dear Mr. Limpias:

By letter dated June 9, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15167A066), Nebraska Public Power District (NPPD, the licensee) submitted Relief Request RC3-01, to the U.S. Nuclear Regulatory Commission (NRC), for the use of an alternative to the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components" for Cooper Nuclear Station (CNS).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, paragraph 50.55a(z)(1), the licensee is requesting relief to reduce the duration of the CNS second containment inservice inspection (CISI) interval in order to create a common inservice inspection (ISI) interval for CNS, on the basis that the alternative provides an acceptable level of quality and safety. This relief will permit subsequent CISI interval dates to be synchronized with the future ISI intervals. The net effect of this request is to establish one common interval for both the ISI and CISI programs at CNS. The CNS conversion to the common ISI interval start date would commence on March 1, 2016.

Based on the NRC staff's evaluation of the information provided in the licensee's submittal, the staff concludes, as set forth in the enclosed safety evaluation, that the licensee's proposed alternative to the requirements of ASME Code, Section XI, Subarticle IWA-2430, is acceptable because it will provide an acceptable level of quality and safety. Accordingly, the staff concludes that the licensee has adequately addressed the regulatory requirements set forth in 10 CFR 50.55a(z)(1) and is in compliance with the requirements of the ASME Code for which relief was not requested. Therefore, the staff authorizes the licensee to end the second CISI program interval early and commence the use of the 2007 Edition with the 2008 Addenda of the ASME Code, Section XI, for ISI of ASME Code Class MC Components as the common Code of record for the CISI program third 10-year interval commencing on March 1, 2016.

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

O. Limpas

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If you have any questions, please contact Thomas Wengert at 301-415-4037 or via e-mail at Thomas.Wengert@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Meena K. Khanna". The signature is fluid and cursive, with a large loop at the end.

Meena K. Khanna, Chief
Plant Licensing IV-2 and Decommissioning
Transition Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosure:
Safety Evaluation

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR RELIEF RC3-01

ALIGNMENT OF INSERVICE INSPECTION AND CONTAINMENT INSERVICE INSPECTION

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

DOCKET NO. 50-298

1.0 INTRODUCTION

By letter dated June 9, 2015 (Agencywide Document Access and Management System (ADAMS) Accession No. ML15167A066), Nebraska Public Power District (NPPD, the licensee), requested an alternative to the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," for the Cooper Nuclear Station (CNS).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, paragraph 50.55a(z)(1), the licensee is requesting relief to reduce the duration of the CNS second containment inservice inspection (CISI) interval in order to create a common inservice inspection (ISI) interval for CNS, on the basis that the alternative provides an acceptable level of quality and safety. This relief will permit subsequent CISI interval dates to be synchronized with the future ISI intervals. The net effect of this request is to establish one common interval for both the ISI and CISI programs at CNS. The CNS conversion to the common ISI interval start date would commence on March 1, 2016.

2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g) specifies that ISI of nuclear power plant components shall be performed in accordance with the requirements of the ASME Code, Section XI. Section 50.55a(z) of 10 CFR states, in part, that alternatives to the requirements of paragraph (g) may be used, when authorized by the Nuclear Regulatory Commission (NRC), if (1) the proposed alternative would provide an acceptable level of quality and safety, or (2) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Pursuant to 10 CFR 50.55a(g)(4), components that are classified as Class MC and Class CC pressure retaining components and their integral attachments, must meet the requirements, except the design and access provisions and preservice examination requirements, set forth in

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the ASME Code, Section XI, to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations in 10 CFR 50.55a(g)(4) require 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 Section XI of the ASME Code, incorporated by reference in Paragraph (a) of 10 CFR 50.55a, 12 months before the start of the 120-month inspection interval, subject to the limitations and modifications listed therein.

3.0 TECHNICAL EVALUATION

3.1 ASME Code Components Affected

ASME Section XI, Code Class MC Components.

3.2 Applicable Code Edition and Addenda

The licensee stated that the current Code of record for the CISI Program Second 10-Year Interval is the ASME Code, Section XI, 2001 Edition, 2003 Addenda. However, if the requested alternative is approved, the CISI program third 10-year interval start date will be aligned with the ISI program fifth 10-year interval and synchronized with the ASME Code, Section XI, 2007 Edition, 2008 Addenda requirements of these programs.

3.3 Applicable ASME Code Requirement

ASME Code, Section XI, Subarticle IWA-2432 (2001 Edition, 2003 Addenda; IWA-2431, 2007 Edition, 2008 Addenda) requires that each inspection interval consist of a 10-year duration and permits the inspection interval to be reduced or extended by as much as 1 year, provided that successive intervals are not altered by more than 1 year from the original pattern of intervals, except as modified by IWA-2430(d), and IWA-2430(c) for the 2007 Edition, 2008 Addenda.

3.4 Licensee Proposed Alternative and Basis for Use

Currently, the CNS fifth 10-year ISI program interval is scheduled to begin on March 1, 2016, while the CISI third 10-year program interval is scheduled to begin on May 9, 2018. CNS proposes to reduce the duration of the CISI third 10-year program interval to coincide with the start of the ISI fifth 10-year program interval. This proposed alternative will permit the subsequent ISI and CISI programs to share a common inspection interval and to implement a common ASME Code Section XI Edition and Addenda (2007 Edition, 2008 Addenda). The licensee stated that since this proposed alternative will shorten the current CISI program second 10-year interval by approximately 2 years, CNS has completed all the required CISI examinations for the CISI second 10-year interval during the last refueling outage (RE28 in October 2014) in preparation for this submittal. The licensee further stated that the examinations performed, to date, have satisfied the acceptance standards contained in Article IWE-3000.

The licensee stated that 10 CFR 50.55a(g)(4)(ii) does not prohibit licensees from updating to a later Edition and Addenda of the ASME Code midway through a 10-year IWE and IWL examination interval. The licensee further stated that using the common interval date justified above and based on the current ISI program, the ASME Code of record for the fifth 10-year

interval ISI and third 10-year interval CISI programs, is to be set on March 1, 2016. The latest edition and addenda of the ASME Code incorporated by reference in 10 CFR 50.55(a)(1)(ii) of the regulation is the 2007 Edition, 2008 Addenda. Currently, the CISI program second 10-year interval is using the ASME Code, Section XI, 2001 Edition, 2003 Addenda. Thus, CNS will utilize the 2007 Edition, 2008 Addenda of Section XI to develop the ISI program update for the fifth 10-year ISI interval and third 10-year CISI interval. The licensee asserts that the proposed alternative, as described above, provides an acceptable level of quality and safety and does not adversely impact the health and safety of the public.

3.5 NRC Staff Evaluation

In the supplementary information contained in Section 2.2 of the Final Rule (67 FR 60520), dated September 26, 2002, the NRC staff stated, in part, that 10 CFR 50.55a(g)(4)(ii) does not prohibit licensees from updating to a later edition and addenda of the ASME Code midway through a 10-Year IWE or 5-Year IWL examination interval. Additionally, the staff advised that licensees wishing to synchronize their 120-month intervals may submit a request in accordance with 10 CFR 50.55a(a)(3), currently reflected in 10 CFR 50.55a(z), to obtain authorization to extend or reduce 120-month intervals.

In the subject alternative request, the licensee proposed an alternative to the requirements of the ASME Code, Section XI, IWA-2430(b) and IWA-2432 requirements. The proposed alternative will reduce the duration of the second 10-year CISI program interval by approximately 26 months (March 1, 2016 versus May 9, 2018). However, ASME Code, Section XI, IWA-2432(d) allows only a 1-year change to the original pattern of the 10-year ISI interval. Therefore, to determine whether the proposed alternative will provide an acceptable level of quality and safety, the NRC staff's review focused on its effect on the implementation of the ASME Code-required CISI program.

The proposed alternative will align the 10-year CISI interval with the ISI interval starting on March 1, 2016. This will establish a common 10-year interval for both the CISI and the ISI programs at CNS and allow the use of a common ASME Code of record. The common Code of record for this interval, which was set on February 28, 2015 (i.e., 12 months prior to the start of the successive interval in accordance with 10 CFR 50.55a(g)(4)(ii)), currently is ASME Code, Section XI, 2007 Edition, 2008 Addenda.

CNS has different 10-year CISI and ISI program interval dates, which may result in implementation of different governing code editions and requirements in subsequent ISI program intervals. The 10-year program interval dates are different because the CISI program was not implemented until the NRC's amended rule became effective on September 9, 1996. The proposed alternative will align and synchronize both 10-year programs and establish the use of the ASME Code, Section XI, 2007 Edition, 2008 Addenda, as the common Code of record. The licensee stated that there are distinct advantages in implementing the same Code requirements in a common interval, such as the reduction of administrative burden in developing and maintaining different sets of procedures and requirements, thus reducing possible errors associated with applying two different ASME Code Editions and Addenda requirements at the same time. The licensee also stated that any CISI examinations unique to and specifically required for the remainder of the second 10-year interval have already been performed and not deferred to the end of the interval. The licensee stated that it has completed all of the required CISI examinations for the second 10-year interval during the last refueling outage (RE28 in

October 2014) in preparation of this request, and that the completed examinations performed to date have satisfied the acceptance standards of Article IWE-3000. The licensee stated that upon authorization by the NRC staff of this proposed alternative, CNS intends to use the same start and end dates for the CISI program third 10-year interval and the ISI program fifth 10-year interval along with the same ASME Code, Section XI, 2007 Edition with the 2008 Addenda requirements.

The 2007 Edition, 2008 Addenda, is the latest edition and addenda available and have been previously reviewed by the NRC staff and incorporated by reference into 10 CFR 50.55a for use by licensees. Since the licensee did not request relief from any of the conditions applicable to the 2007 Edition, 2008 Addenda, any applicable conditions will remain in effect. Since the licensee completed all of the examinations applicable to the second 10-year CISI interval, implementation of this request would not result in any fewer examinations.

The NRC staff review addressed the ability of the licensee to maintain an acceptable level of quality and safety after altering its ISI programs and to ensure integrity of the containment. Based on these considerations, the staff has determined that the licensee's proposed alternative to allow the CISI program third 10-year interval start date to be aligned with the ISI program fifth 10-year interval and to synchronize the ASME Code, Section XI, 2007 Edition, 2008 Addenda, requirements of these programs (e.g., use of a common ASME Code of record), with no change to the inspection frequency of examinations, provides reasonable assurance of quality and safety.

4.0 CONCLUSION

Based on the NRC staff's evaluation of the information provided in the licensee's submittal, the staff concludes that the licensee's proposed alternative to the requirements of ASME Code, Section XI, Subarticle IWA-2430, is acceptable because it will provide an acceptable level of quality and safety. Accordingly, the staff concludes that the licensee has adequately addressed the regulatory requirements set forth in 10 CFR 50.55a(z)(1) and is in compliance with the requirements of the ASME Code for which relief was not requested. Therefore, the staff authorizes the licensee to end the second CISI program interval early and commence the use of the 2007 Edition with the 2008 Addenda of the ASME Code, Section XI, for inservice inspection of ASME Code Class MC Components as the common Code of record for the CISI program third 10-year interval at Cooper Nuclear Station, commencing on March 1, 2016.

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: R. Pettis

Date: February 12, 2016

O. Limpias

- 2 -

If you have any questions, please contact Thomas Wengert at 301-415-4037 or via e-mail at Thomas.Wengert@nrc.gov.

Sincerely,

/RA/

Meena K. Khanna, Chief
Plant Licensing IV-2 and Decommissioning
Transition Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-298

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Safety Evaluation

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