Nebraska Public Power District
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10 CFR 50.55a

NLS2021039
June 16, 2021

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: 10 CFR 50.55a Relief Request RS-01, Revision 0
Cooper Nuclear Station, Docket No. 50-298, License No. DPR-46

Dear Sir or Madam:

The purpose of this letter is for the Nebraska Public Power District (NPPD) to request that the Nuclear Regulatory Commission grant relief from, and authorize alternative to, inservice testing (IST) code requirements for the Cooper Nuclear Station (CNS) pursuant to 10 CFR 50.55a. The attached relief request pertains to the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance (OM) of Nuclear Power Plants snubber examination requirement needed for the Fifth Ten-Year IST Interval (March 1, 2016 through February 28, 2026). The applicable code for the fifth ten-year interval is the ASME OM Code 2004 Edition through the 2006 Addenda.

Relief Request RS-01, attached to this letter, is applicable to the Fifth Ten-Year IST Interval. NPPD requests approval of this relief request by June 16, 2022.

This letter contains no regulatory commitments.

Should you have any questions concerning this matter, please contact Linda Dewhirst, Regulatory Affairs and Compliance Manager, at (402) 825-5416.

Sincerely,

John Dent, Jr.
Vice President and
Chief Nuclear Officer

/dv

Attachment: Relief Request RS-01, Revision 0

cc: Regional Administrator w/ attachment
USNRC - Region IV

Cooper Project Manager w/ attachment
USNRC - NRR Plant Licensing Branch IV

Senior Resident Inspector w/ attachment
USNRC - CNS

NPG Distribution w/ attachment

CNS Records w/ attachment

Relief Request RS-01, Revision 0
Examination Interval for Snubbers

1. ASME Code Component(s) Affected

All snubbers within the scope of American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance (OM) of Nuclear Power Plants, ISTA-1100.

53 ANVIL/Grinnell Hydraulic Snubbers
18 PSA-3 Mechanical Snubbers
89 PSA-10 Mechanical Snubbers
48 PSA-35 Mechanical Snubbers

2. Applicable Code Edition and Addenda

ASME OM Code 2004 Edition through 2006 Addenda

3. Applicable Code Requirement

ASME OM Code ISTD-4250 Inservice Examination Intervals

4. Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and Standards," paragraph (z)(1), relief is requested from the requirements of ASME OM Code ISTD-4250. The proposed alternative provides an acceptable level of quality and safety for the remainder of the Fifth Ten-Year Inservice Testing Interval (IST) Interval (March 1, 2016 through February 28, 2026).

Cooper Nuclear Station (CNS) is currently following Nuclear Regulatory Commission (NRC) approved Code Case OMN-13 (2004 Edition), "Requirements for Extending Snubber Inservice Visual Examination Interval at LWR Power Plants." This was the latest approved version of OMN-13 as of the start of the CNS Fifth Ten-Year IST Interval per Table 1 of Regulatory Guide 1.192, Revision 1 (August 2014), "Operation and Maintenance Code Case Acceptability, ASME OM Code." The Code Case states that all snubbers within the scope of ISTD shall be examined and evaluated per ISTD 6.1 [ISTD-4210], ISTD 6.3[ISTD-4230], and ISTD 6.4 [ISTD-4240] at least once every 10 years.

A grace period allowance for the 10-year examination interval is not specified in OMN-13. Because of the strict 10-year interval requirement, CNS would be implementing a less efficient overall program for the mechanical snubbers, as explained in section 5, and would be required to perform many mechanical/hydraulic snubber examinations on a four refueling cycle interval rather than every five refueling cycles due to the potential to exceed the OMN-13 10-year examination date by only a few days. The proposed alternative will allow CNS to continue to implement an effective snubber program in an efficient manner with no impact on snubber performance.

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5. Proposed Alternative and Basis for Use

CNS is proposing a variation to the Code Case OMN-13 frequency requirement of at least once every 10 years. For the reasons provided in the following paragraphs, CNS proposes that for any snubber examination coming due during a snubber refueling outage campaign period (60 days prior to the start of the refueling outage up to plant startup), the examination and evaluation shall be completed prior to plant startup for that refueling outage. This time period is in alignment with the test frequency specified in ISTD-5240.

Prior to the Fifth Ten-Year IST Interval, CNS began utilizing ISTD and the previously NRC approved version of OMN-13 in refueling outage RE24 (Spring/2008). At that time, the operating cycles were 18 months long. Following the refueling outage in the Fall of 2012 (RE27), CNS began its first 24-month operating cycle. The remaining refueling outages of the Fifth Ten-Year IST Interval are scheduled for the Fall of 2022 (RE32) and the Fall of 2024 (RE33). Therefore, RE32 represents the first refueling outage in which the full 24-month interval has occurred for five continuous cycles. Based on this situation, under Code Case OMN-13, snubber examinations that were performed in September/October of 2012 (Pre-RE27 or during RE27) would be due exactly 10 years later on the same dates in September/October of 2022 (Pre-RE32 or during RE32) with no grace period allowed.

To maintain these examinations on a five refueling cycle interval and still meet the OMN-13 Code Case frequency with no grace, the examinations would have to be carefully scheduled and monitored to ensure the 10-year interval for each one was not exceeded prior to the completion of each examination. In some cases, the snubber examination(s) would be required to be scheduled during times when specific systems are taken out of service, which limits the flexibility in scheduling. Also, delays may occur during the refueling outage, which could potentially move out the initial scheduled date to past the 10-year date required for OMN-13. The time and resources to monitor these activities to this degree are not necessary. Performing a snubber examination at 10 years or slightly over 10 years during the same scheduled snubber refueling outage campaign will not impact program effectiveness. Any actions required prior to plant startup per ISTD and/or Code Case OMN-13 would still be implemented in the same manner.

Another basis for pursuing this relief request is the aggressive service life monitoring approach taken at CNS for the mechanical snubbers within the program. Although the vendor design life of the mechanical snubbers is 40 years, due to the potential impact from vibration, heat, and radiation, CNS performs a service life snubber activity after approximately 10 years in service for all mechanical snubbers. This approach has resulted in an excellent performance history for the mechanical snubbers.

For efficiency purposes, this service life monitoring activity for mechanical snubbers is completed following the as-found OMN-13 examinations. Generally, the snubber is

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replaced with a pretested, rebuilt mechanical snubber and the removed snubber is as-found tested and returned to spares to be rebuilt at a future date. As a minimum, the snubber is removed, tested, and re-installed. Historically, this service life activity for mechanical snubbers has proven to be very effective in the overall performance of the mechanical snubbers at the 10-year frequency, so performing service life activity at slightly greater than 10 years would be an acceptable practice. Therefore, it is not desirable to move this activity to eight years (four refueling cycles) to ensure that the 10-year OMN-13 examination frequency with no grace is met. Also, performing the OMN-13 examination approximately every eight years to ensure that OMN-13 is met, and the service life monitoring activity approximately every 10 years would not be efficient. Over the life of the plant, performing the examination and service life monitoring activity every four refueling cycles or performing them independently at different intervals would increase resources and radiological dose with no compensating increase in quality or safety. Service life monitoring activities will continue to be evaluated by CNS as required by ISTD-6000, Service Life Monitoring.

CNS has implemented Code Case OMN-13 since the Spring of 2008 and no snubber examination failures and/or test failures have occurred during this period. This success is expected to continue with the proposed alternative. Therefore, allowing the OMN-13 examination frequency to extend slightly beyond 10 years will have a negligible impact on the examination results and will allow CNS to continue to implement an effective service life program for mechanical snubbers.

In conclusion, CNS proposes that for any snubber examination coming due during a snubber refueling outage campaign period (60 days prior to the start of the refueling outage up to plant startup), the examination and evaluation shall be completed prior to plant startup for that refueling outage. For the reasons provided, this alternative will provide an acceptable level of quality and safety for the snubbers at CNS pursuant to 10CFR50.55a(z)(1).

6. Duration of Proposed Alternative

This proposed alternative will be utilized for the remainder of the fifth ten-year interval.

7. Precedents

None identified.