



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

February 12, 2024

Mr. John Dent, Jr.  
Vice President and  
Chief Nuclear Officer  
Nebraska Public Power District  
72676 648A Avenue  
P.O. Box 98  
Brownville, NE 68321

SUBJECT: COOPER NUCLEAR STATION – SUMMARY OF REGULATORY AUDIT IN  
SUPPORT OF RELIEF REQUEST RC3-02 REGARDING DRYWELL HEAD  
BOLTING (EPID L-2023-LLR-0035)

Dear Mr. Dent:

By letter dated June 27, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23178A273), Nebraska Public Power District (the licensee) submitted a relief request for Cooper Nuclear Station (Cooper), seeking relief from certain inservice inspection (ISI) requirements concerning drywell head bolting in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g)(5)(iii). The relief request pertains to the visual inspection requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components."

To support its review of the relief request, the U.S. Nuclear Regulatory Commission (NRC) staff conducted a virtual regulatory audit via the use of an internet-based portal set up by the licensee from September 18, 2023, through January 31, 2023. During the regulatory audit, the NRC staff reviewed documents and held discussions with the licensee's staff and its representatives. The regulatory audit summary is enclosed with this letter.

J. Dent, Jr.

- 2 -

If you have any questions, please contact me at 301-415-3719 or by email at [Thomas.Byrd@nrc.gov](mailto:Thomas.Byrd@nrc.gov).

Sincerely,

**/RA/**

Thomas J. Byrd, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosure:  
Regulatory Audit Summary

cc: Listserv

OFFICE OF NUCLEAR REACTOR REGULATION

REGULATORY AUDIT SUMMARY

IN SUPPORT OF RELIEF REQUEST RC3-02 REGARDING DRYWELL HEAD BOLTING

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

DOCKET NO. 50-298

1.0 BACKGROUND

By letter dated June 27, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23178A273), Nebraska Public Power District (the licensee) submitted a relief request for Cooper Nuclear Station (Cooper), seeking relief from certain inservice inspection (ISI) requirements concerning drywell head bolting in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g)(5)(iii), "ISI program update: Notification of impractical ISI Code requirements." The relief request pertains to the visual inspection requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components."

Information that the U.S. Nuclear Regulatory Commission (NRC) staff relies upon to make the safety determination must be submitted on the docket. However, the NRC staff may review supporting information retained as records under 10 CFR 50.71, "Maintenance of records," and/or 10 CFR 54.37, "Additional records and recordkeeping requirements," which, although not required to be submitted as part of the licensing action, would help the NRC staff better understand the licensee's submitted information. To support its review of the relief request, the NRC staff issued a regulatory audit plan on September 5, 2023 (ML23233A188). The purpose of the audit is to review the documentation related to the subject of its application (e.g., calculations and reports) that were not submitted on the Cooper docket, to acquire additional understanding about the relief request, and to determine whether additional information is needed to be docketed to complete the NRC staff's safety evaluation.

2.0 AUDIT ACTIVITIES

The NRC audit team consisted of NRC staff. Attachment 1 of this audit summary lists the individuals that took part in or attended the audit. The virtual regulatory audit was conducted from September 18, 2023 through January 31, 2024. Throughout the audit period, the NRC audit team used an internet-based portal provided by the licensee to review primarily non-docketed information related to the application. On November 9, 2023, the NRC staff submitted audit questions to the licensee (ML23318A525). A formal, virtual audit meeting with the licensee was held on November 27, 2023, to facilitate technical discussions of audit questions and disciplines according to the audit plan.

Technical discussions were focused on the following major areas: leak rate testing, component integrity, asymmetrical load considerations, environmental considerations around the drywell closure circumference, details on the visual inspection performance, effects of corrosion on

Enclosure

drywell bolt tightness, and previous inspections performed on the drywell head bolting. On November 28, 2023, the NRC staff provided a brief conclusion of the formal, virtual audit meeting including audit objectives that were met and details on the path forward. Non-docketed information provided by the licensee in response to audit questions and the formal meeting is listed in attachment 2 of this audit summary. The NRC staff provided the licensee with a request for additional information (RAI) on December 18, 2023 (ML23352A247), detailing information the NRC needed for its regulatory decision. In lieu of an exit meeting, the NRC's licensing project manager discussed on January 31, 2024, with the licensee regarding closeout of the audit and this completed the regulatory audit related activities.

### 3.0 RESULTS OF THE AUDIT

The NRC staff submitted an RAI on December 18, 2023, to the licensee, requesting the information necessary to evaluate this request.

#### Attachments:

1. List of Participants
2. List of Documents Reviewed During Audit

## **List of Participants**

### **U.S. Nuclear Regulatory Commission Audit Team**

#### **Name, Organization**

- Thomas Wengert, Plant Licensing Branch IV (LPL4)
- John Tsao, Vessels and Internals Branch (NVIB)
- David Dijamco, NVIB
- George Wang, Structural, Civil, and Geotechnical Branch (ESEB)

### **Nebraska Public Power District (NPPD) Audit Team**

#### **Name, Organization**

- Linda Dewhirst, NPPD Regulatory Affairs Manager
- Dave Van Der Kamp, NPPD Licensing Technical Assistant
- Shane Charbonnet
- Nate Werner
- Bill Green
- Tim McClure
- Phil Leininger

### **List of Documents Reviewed During Audit**

Nebraska Public Power District (the licensee) provided an extensive list of supporting documents (e.g., photos, reports, drawings, and procedures) on the Cooper Nuclear Station document portal available during the audit period. Below lists the documents available on the portal that the U.S. Nuclear Regulatory Commission audit team reviewed during the audit.

- Cooper Nuclear Station Operation Manual, Maintenance Procedure 7.4 Reassembly, "Reactor Vessel Reassembly," Revision 23.
- GE Hitachi Nuclear Energy Procedure, GEH-VT-108, "Procedure for the Visual Examination of ASME Section XI Subsection IWE Components," Revision 1.
- GE Hitachi Nuclear Energy Procedure, GE-VT-103, "Procedure for VT-3 Examination," Revision 9C1.
- Cooper Nuclear Station Operation Manual, Surveillance Procedure 6.PC.525, "Hatch and Flange Local Leak Rate Tests," Revision 21.
- Report No. VT-IWE32-22-032 for Visual Examination of IWE Surface (VT-1) ) at Cooper Nuclear Station, Unit 1 during Outage No. RE32, October 15, 2022.
- Report No. VT-IWE32-22-033 for Visual Examination of IWE Surface (VT-1) at Cooper Nuclear Station, Unit 1 during Outage No. RE32, October 15, 2022.
- Report No. VT-F18-036 for Visual Examination of Pressure Retaining Bolting (VT-1) at Cooper Nuclear Station, Unit 1 during Outage No. RE30, October 16, 2018.
- Report No. VT-F18-035 for Visual Examination of Pressure Retaining Bolting (VT-1) at Cooper Nuclear Station, Unit 1 during Outage No. RE30, October 16, 2018.
- Report No. VT-F14-025 for Visual Examination of IWE Surfaces (VT-3) at Cooper Nuclear Station, Unit 1 during Outage No. RE28-IWE, October 13, 2014.
- Report No. VT-F14-109 for Visual Examination of IWE Surfaces (VT-3) at Cooper Nuclear Station, Unit 1 during Outage No. RE28-IWE, October 13, 2014.
- Report No. VE-03-216 for Vendor Exam FOR Visuals at Cooper Nuclear Station, Unit 1 during Outage No. RE21-IWE, April 1, 2003.
- Condition Report 1-12614, "Broken Tack Welds," October 17, 1995.
- Condition Report CR-CNS-2018-06208, "Postpone VT-1 Exams of Drywell Head Nuts," October 8, 2018.
- Drawing No. 10, "Drywell Top Flange Assembly," April 4, 1968.

- Drawing No. 11, "Drywell Top Flange Assembly Details," April 4, 1968.
- Photos of the Containment Drywell Head Bolts, Nuts, Washers, and Shell Flanges from Different Locations and Angles

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BOLTING (EPID L-2023-LLR-0035) DATED FEBRUARY 12, 2024

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JTsao, NRR

DDijamco, NRR

GWang, NRR

**ADAMS Accession No. ML24033A309****\*By email**

OFFICE	NRR/DORL/LPL4/PM*	NRR/DORL/LPL4/LA*	NRR/DEX/ESEB/BC*	NRR/DNRL/NVIB/BC*
NAME	TByrd	PBlechman	ITseng	ABuford
DATE	02/02/2024	2/9/2024	02/09/2024	02/09/2024
OFFICE	NRR/DORL/LPL4/BC*	NRR/DORL/LPL4/PM*		
NAME	JRankin	TByrd		
DATE	02/12/2024	02/12/2024		