



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

May 26, 2015

LICENSEE: Omaha Public Power District

FACILITY: Fort Calhoun Station, Unit 1

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE ON MAY 17, 2015, TO
AUTHORIZE VERBAL RELIEF FOR RELIEF REQUEST 14 (TAC NO. MF6206)

This memorandum summarizes the telephone discussion on May 17, 2015, between the U.S. Nuclear Regulatory Commission (NRC) staff and Omaha Public Power District (OPPD, the licensee) staff regarding the licensee's request for relief RR-14 for Fort Calhoun Station, Unit 1 (FCS). Participants in the discussion included L. Cortopassi, J. Wilson, W. Hansher, et al. (OPPD), and M. Markley, D. Alley, F. Lyon, et al. (NRC).

By letter to the NRC dated May 9, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15129A004), as supplemented by letters dated May 13, 16, and 17, 2015 (ADAMS Accession Nos. ML15135A387, ML15136A002, and ML15142A411, respectively), OPPD submitted RR-14 for the inspection of reactor vessel head nozzles at FCS. In RR-14, the licensee proposed to use alternative inspection requirements for reactor vessel head nozzles with respect to American Society of Mechanical Engineers (ASME) Code Case N-729-1, "Alternative Examination Requirements for PWR [Pressurized-Water Reactor] Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds Section XI, Division 1," as conditioned in Title 10 of the *Code of Federal Regulations* (10 CFR) paragraph 50.55a(g)(6)(ii)(D) until the end of operating cycle 28 or until a degraded reactor vessel head nozzle is detected.

The NRC staff reviewed the licensee's results of current bare metal visual examinations of the reactor vessel head nozzles, the potential of nozzle ejection and reactor vessel head degradation resulting from the boric acid corrosion, and the proposed inspection plan that the licensee will be performing in the next refueling outage in fall 2016.

The NRC staff concludes that:

1. The licensee has demonstrated that nozzle ejection and reactor vessel head degradation are not likely in the next fuel cycle.
2. The licensee's bare metal visual examinations did not identify any areas of significant corrosion,
3. The licensee has demonstrated that there was an alternate possible source other than nozzle leakage for the relevant condition for each of the nozzles for which relief is requested.

4. The licensee's chemistry analysis provided some additional supporting information for leakage sources other than possible nozzle leakage
5. The licensee will use administrative controls such that at an unidentified leak rate increase of greater than 0.1 gallons per minute above stable baseline, actions will be taken to identify the source of leakage. If the source is not identified within 24 hours, actions will be taken to shut down the plant.
6. The licensee will perform a bare metal visual examination of all reactor vessel head nozzles in accordance with ASME Code Case N-729-1 on the first cold shutdown of greater than 72 hours that occurs after at least 4 months of operation.
7. For the fall 2016 inspection, the licensee will perform bare metal visual examinations in combination with ultrasonic examinations or surface examinations of all reactor vessel head nozzles in accordance with ASME Code Case N-729-1 as conditioned in 10 CFR 50.55a(g)(6)(ii)(D).

Based on the above, the NRC staff has determined that the proposed alternative inspection performed in spring 2015 provides reasonable assurance that the structural integrity of the reactor vessel head and attached nozzles will be maintained until the next refueling outage, which is scheduled for fall 2016.

The NRC staff concludes that RR-14 will provide reasonable assurance of the structural integrity of the reactor vessel head and attached nozzles. The NRC staff concludes that complying with the specified inspection in accordance with ASME Code Case N-729-1 would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2) and is in compliance with the requirements of the ASME Code, Section XI, Code Case N-729-1 as conditioned by 10 CFR 50.55a(g)(6)(ii)(D). Therefore, on May 17, 2015, as authorized by David Alley, Chief, Component Performance, Non-Destructive Examination, and Testing Branch, and Michael Markley, Chief, Plant Licensing Branch IV-1, Office of Nuclear Reactor Regulation, the NRC authorizes the use of RR-14 at FCS until the end of operating cycle 28, scheduled for fall 2016, or until a degraded reactor vessel head nozzle is detected.

All other requirements of ASME Code, Section XI, and 10 CFR 50.55a(g)(6)(ii)(D) for which relief was not specifically requested and authorized by the NRC staff remain applicable, including the third-party review by the Authorized Nuclear Inservice Inspector.

This verbal authorization does not preclude the NRC staff from asking additional clarification questions regarding RR-14 while preparing the subsequent written safety evaluation.

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If you have any questions, please contact me at (301) 415-2296 or by e-mail at fred.lyon@nrc.gov.

A handwritten signature in black ink, appearing to read "C. F. Lyon". The signature is written in a cursive, flowing style.

Carl F. Lyon, Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-285

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If you have any questions, please contact me at (301) 415-2296 or by e-mail at fred.lyon@nrc.gov.

/RA/

Carl F. Lyon, Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
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