



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

June 27, 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 FOR ADDITIONAL
INFORMATION RE: PROPOSED ALTERNATIVE TO USE ASME CODE
CASE N-513-4 (CAC NO. MF7574)

Dear Mr. Marik:

By letter dated April 11, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16102A399), Omaha Public Power District submitted a proposed alternative to the requirements of the American Society of Mechanical Engineers *Boiler and Pressure Vessel Code* (ASME Code) to use ASME Code Case N-513-4, "Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping Section XI, Division 1," to Class 2 and 3 moderate energy piping including elbows, bent pipe, reducers, expanders, and branch tees.

The U.S. Nuclear Regulatory Commission staff has reviewed the information provided in your application and determined that additional information is required in order to complete its formal review of your request. The enclosed questions were provided to E. Matzke of your staff on June 21, 2016. Please provide a response to the enclosed questions within 30 days of the date of this letter. If you have any questions, please contact me at 301-415-2296 or via e-mail at Fred.Lyon@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "CF Lyon", is positioned above the typed name.

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

Docket No. 50-285

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

PROPOSED ALTERNATIVE TO USE ASME CODE CASE N-513-4

OMAHA PUBLIC POWER DISTRICT

FORT CALHOUN STATION, UNIT NO. 1

DOCKET NO. 50-285

By letter dated April 11, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16102A399), Omaha Public Power District (OPPD) requested the U.S. Nuclear Regulatory Commission (NRC) to authorize relief from Section XI of the American Society of Mechanical Engineers *Boiler and Pressure Vessel Code* (ASME Code) to use ASME Code Case N-513-4 for the evaluation and temporary acceptance of flaws in moderate energy Class 2 and 3 piping at Fort Calhoun Station, Unit No. 1.

To complete its review, the NRC staff requests the following additional information.

RAI-1

Code Case N-513-4 provides criteria which would allow the licensee to accept flaws, including through-wall flaws, in moderate energy Class 2 or 3 piping including elbows, bent pipe, reducers, expanders, and branch tees, without performing a repair or replacement activity for a limited time, not to exceed the next schedule refueling outage. Paragraph 1(f) states:

The provisions of this Case demonstrate the integrity of the item and not the consequences of leakage. It is the responsibility of the Owner to consider effects of leakage in demonstrating system operability and performing plant flooding analyses.

The proposed alternative does not specify a maximum leakage rate for which the alternative may be used. Through operating experience and information provided in other relief requests, the NRC staff has identified cases where leak rates increased from drops per minute to gallons per minute (gpm) before the next refueling schedule. Based on this, the staff has concerns regarding the management of leakage and the possibility of large leak rates which can erode defense-in-depth and lead to adverse consequences. Paragraph 1(f) and the other provisions in the Code Case may not be sufficient to ensure defense-in-depth is maintained and that adverse consequences are minimized. The NRC has approved similar alternatives which were limited to a maximum leakage rate of 5 gallons per minute (e.g., relief request ANO2-ISI-017 for Arkansas Nuclear One, Unit 2, approved by letter dated March 16, 2015; ADAMS Accession No. ML15070A428).

Please revise the proposed alternative to include a maximum leakage rate for which Code Case N-513-4 will be used. Explain how the proposed maximum leakage rate is adequate to ensure defense-in-depth is maintained and that adverse consequences are minimized.

Enclosure

June 27, 2016

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Site Vice President and Chief Nuclear Officer
Omaha Public Power District
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/RA/

Carl F. Lyon, Project Manager
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*email dated

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