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Omaha NE 68102-2247

May 16, 2003
LIC-03-0078

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

- References:
1. Docket No. 50-285
 2. Letter from OPPD (R. T. Ridenoure) to NRC (Document Control Desk) dated December 20, 2002, Relief Requests Pertaining to the Fort Calhoun Station Inservice Inspection of the Reactor Pressure Vessel (RPV) for the Third Ten Year ISI Interval (1993-2003) (LIC-02-0142)
 3. Letter from NRC (A. B. Wang) to OPPD (R. T. Ridenoure) dated April 25, 2003, Request for Additional Information – Relief Requests Pertaining to the Fort Calhoun Station (FCS) Inservice Inspection of the Reactor Pressure Vessel for the Third Ten Year ISI Interval (1993-2003) (TAC No. MB6986) (NRC-03-058)

SUBJECT: Response to NRC's Request for Additional Information – Inservice Inspection (ISI) of the Reactor Pressure Vessel (RPV) for the Third Ten Year ISI Interval

This letter responds to the Nuclear Regulatory Commission's (NRC's) Request for Additional Information (Reference 3) with regard to Omaha Public Power District's (OPPD's) request, "Relief Requests Pertaining to the Fort Calhoun Station (FCS) Inservice Inspection of the Reactor Pressure Vessel for the Third Ten Year ISI Interval (1993-2003)" (Reference 2).

This letter also withdraws two OPPD relief requests made in Reference 2; i.e., RR-1, Use of Alternative to RPV Nozzle-to-Vessel Welds, and RR-4, Use of Code Case N-663 only for RPV Nozzle-to-Safe End Welds.

I declare under penalty of perjury that the forgoing is true and correct. (Executed on May 16, 2003). No commitments are made to the NRC in this letter.

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U. S. Nuclear Regulatory Commission

LIC-03-0078

Page 2

If you have any questions or require additional information, please contact Dr. R.L. Jaworski of the FCS Licensing staff at (402) 533-6833.

Sincerely,

A handwritten signature in cursive script, appearing to read "R. L. Phelps", with a date "5-16-03" written below it.

R. L. Phelps
Division Manager
Nuclear Engineering

RLP/RLJ/rlj

Attachment

c: E. W. Merschoff, NRC Regional Administrator, Region IV
A. B. Wang, NRC Project Manager
J. G. Kramer, NRC Senior Resident Inspector
Winston & Strawn

RESPONSE TO THE NRC
REQUEST FOR ADDITIONAL INFORMATION
ON THIRD 10-YEAR INSERVICE INSPECTION INTERVAL REQUESTS
FOR RELIEF FOR
OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN STATION
DOCKET NUMBER 50-285

NRC Request:

2.1(a) Please state the start and end dates for the third 10-year inspection interval at FCS.

FCS Response:

The start and end dates for the third 10-year inspection interval at FCS are September 26, 1993 to October 31, 2003.

NRC Requests:

2.2(a), (b), (c), and (d) pertaining to Request for Relief RR-1, Examination of Category B-D, Item B3.90, Pressure Retaining Nozzle Welds in Vessels, Alternative to Volumetric Weld Coverage Requirements

FCS Response:

FCS has elected to withdraw this request for relief and perform the code required volumetric weld coverage requirements.

NRC Request:

2.3(a) On page 16 of the licensee's request (enclosure showing changes between Appendix VIII, Supplement 10 and the proposed PDI alternative), the PDI alternative in Section 2.4 table under the "Number of Flaws" does not agree with the table shown in the basis for relief, page 9. Please clarify.

FCS Response:

The tables are meant to be in exact agreement and identical in all respects. The confusion was caused by use of different printer and font settings in electronic copies. This discrepancy was discussed in a conversation between PDI personnel and the NRC (Dan Naujak) on March 28, 2003. PDI and the NRC agreed that this was not a technical issue.

NRC Request:

2.3(b) On page 24 of the licensee's request (enclosure showing changes between Appendix VIII, Supplement 10 and proposed PDI alternative), Section 4.0, item (d), it is stated that "To qualify new values of essential variables, at least one personnel qualification set is required." It is unclear whether this is intended to

require at least one successful personnel qualification with the new essential variables, or simply to include the number of specimens equal to one qualification set. Please clarify.

FCS Response:

- (1) Fort Calhoun Station (FCS) wants to assure that the personnel being qualified are unable to predict the flaws in the test set.
- (2) There are many essential variables with a broad range of applicability. For example, a typical piping procedure may address Supplement 2 austenitic welds and include intergranular stress corrosion cracking (IGSCC). In this particular case, a personnel test set would consist of a minimum of 10 austenitic flaws, accompanied by a minimum of 4 additional IGSCC flaws. If a new essential variable were applicable to both, then all the above flaws would be included. If it were only applicable to IGSCC, a minimum of 4 additional IGSCC flaws would be included. It is intended that the qualification be successful (e.g., all flaws are detected/sized as appropriate), and that it include the number of flawed/unflawed grading units equal to one qualification set.

NRC Requests:

- 2.4(a) Please indicate whether the alternative (including the comparison enclosure) provided in the licensee's request is the most current Supplement 14 version of the proposed PDI alternative.

FCS Response:

Supplement 14 RFR 1 (as well as Supplement 10 RFR 1) is not the most current version. It has been replaced by RFR 2, which incorporates editorial changes made at the last ASME Section XI Code meeting and modifies the allowable tolerances of Supplement 2 and 3 components in paragraph 2.1.b. The RFR 1 versions were current when the relief request was prepared.

NRC Request:

- 2.4(b) The licensee's proposal is aimed at piping welds that are examined from the inner diameter surface using remote automated techniques. The licensee argues that to impose separate qualifications, as currently required by Supplements 2, 3 and 10, is excessive because the ultrasonic essential variables used for dissimilar metal, austenitic, and ferritic welds (when performed from the inner diameter) will be the same. Therefore, it is expected that the inner diameter applications may not be confronted with the same acoustic limitations, i.e., attenuation and beam redirection effects, as methods applied from the outside surface of these piping welds. However, situations may arise that may result in less than two sided examinations.

- (1) It is unclear how the qualification of far-side examinations will be implemented. Provide a discussion on the implementation of far-side examinations for the different supplements.
- (2) It is unclear how the coverage of far-side examinations will be determined. Provide a discussion on coverage of far-side examinations for the different supplements.

FCS Response:

When applying Supplement 14, the following examination coverage criteria requirements and associated qualifications are appropriate and planned:

- (1) Piping must be examined in two axial directions, and when examination in the circumferential direction is required, the circumferential examination must be performed in two directions, provided access is available. Dissimilar metal welds must be examined axially and circumferentially.
- (2) Where examination from both sides is not possible, full coverage credit may be claimed from a single side for ferritic welds. Where examination from both sides is not possible on austenitic welds or dissimilar metal welds, full coverage credit from a single side may be claimed only after completing a successful single-sided demonstration using flaws on the opposite side (far-side) of the weld. Dissimilar metal weld qualifications must be demonstrated from the austenitic side of the weld and may be used to perform examinations from either side of the weld. To date all qualifications performed from the inside surface have been demonstrated with dual side access with scanning allowed from all 4 directions. This is consistent with how the examinations are performed in the field.

NRC Requests:

2.5(a), (b), (c), (d) pertaining to Request for Relief RR-4, Use of Code Case N-663 only for RPV Nozzle-to-Safe End Welds.

FCS Response:

FCS has elected to withdraw this request for relief. The N-662 code case number in Reference 2 is a typographical error. The correct code case number should be N-663.