Omaha Public Power District
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402/636-2000

March 2, 1995
LIC-95-0061

U. S. Nuclear Regulatory Commission
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Mail Station PI-137
Washington, DC 20555

REFERENCES:
1. Docket No. 50-285
2. ASME Section XI, 1980 Edition, with Addenda through Winter of 1980
3. Letter from OPPD (W. G. Gates) to NRC (Document Control Desk), dated July 15, 1994 (LIC-94-0152)
4. Letter from NRC (T. R. Quay) to OPPD (T. L. Patterson), dated September 26, 1994 (TAC No. M89915)
5. Letter from OPPD (W. G. Gates) to NRC (Document Control Desk), dated September 30, 1994 (LIC-94-0188),
6. Letter from NRC (T. R. Quay) to OPPD (T. L. Patterson), dated January 30, 1995 (TAC No. M90579)

SUBJECT: Request for Relief from Hydrostatic Test Requirements for Raw Water System Piping

The purpose of this letter is to request relief from and propose an alternative to a hydrostatic test requirement of the 1980 Edition, Winter 1980 Addendum of ASME Section XI as it applied to the Fort Calhoun Station (FCS) Second 10-Year Inservice Inspection Interval that ended on September 26, 1993. Pursuant to 10 CFR 50.55a(a)(3), Omaha Public Power District (OPPD) requests an exemption from performing the hydrostatic test on two small sections of Raw Water (RW) System piping. The extent of the piping covered by the request, justification for the request and proposed alternate testing is described in the attached Relief Request (Attachment 1) that has been formatted in compliance with the NRC *Inservice Inspection: Guidance for Preparing Requests for Relief from Certain Code Requirements Pursuant to 10 CFR 50.55a(g)(5).*

This request is being submitted because compliance with the Code-required hydrostatic test of the subject RW piping would result in hardship and potential RW System degradation without a compensating increase in the level of quality and safety. Reference 4 granted schedular relief for completion of the RW System hydrostatic testing for the Second 10-Year ISI Interval until the completion of the 1995 Refueling Outage (RFO). Approximately 60% of this testing has been

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Drawings located in Central Files

completed at this time; by the end of the current 1995 RFO, approximately 99% is expected to be complete. OPPD has determined that hydrostatic testing of the remainder (approximately 1%) of the kW System piping is not practical for the reasons detailed in Attachment 1. OPPD requests approval of system pressure testing as an alternative test method to be completed during the 1995 RFO for the approximately 1% of the RW System piping as described in Attachment 1. As discussed in a telephone conference with NKC staff reviewers on February 24, 1995, OPPD understands that the NRC will attempt to complete review and approval of this request prior to the end of the current RFO. Completion of the hydrostatic testing and system pressure testing described in this submittal will provide assurance of RW System operability.

Please contact me if you have any questions.

J K Gasper

for T. L. Patterson
Division Manager
Nuclear Operations

TLP/tcm

Attachments

c: LeBoeuf, Lamb, Greene & MacRae (w/o attachments)
L. J. Callan, NRC Regional Administrator, Region IV (w/o attachments)
S. D. Bloom, NRC Project Manager
R. P. Mullikin, NRC Senior Resident Inspector (w/o attachments)

OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN STATION, UNIT #1
SECOND TEN YEAR INTERVAL
REQUEST FOR RELIEF

I. System/Components for which Relief is Requested: This request for relief covers two short sections of Raw Water (RW) System Piping (see attached RW System P&ID #11405-M-100).

1. Piping between the discharge flange of RW Pump AC-10A and valve HCV-2850 (see attached isometric drawing #IC-309A)

2. Piping between the discharge flange of RW Pump AC-10C and valve HCV-2852 (see attached isometric drawing #IC-309)

II. Code Requirement: This request for relief applies to the Fort Calhoun Station (FCS) Second Ten Year Inservice Inspection Interval, which ended on September 26, 1993. The applicable Code is 1980 Edition, Winter, 1980, Addendum of ASME Section XI, Table IWD-2500-1, Examination Category D-A, Item D1.10, which requires a hydrostatic pressure test for Class 3 piping (including the RW System) per IWA-5000/IWD-5223 once each inspection interval. OPPD has previously been granted schedular relief (Reference 4 of cover letter) which allows until the end of the 1995 Refueling Outage (RFO) to complete the hydrostatic test of the RW System piping.

III. Code Requirement from which Relief is Requested: Relief from performing the hydrostatic pressure test prescribed in ASME Section XI 80W80, Table IWD-2500-1, Item D1.10, and IWD-5223 for the two segments of RW System piping described in I. above is being requested. The Code requires all Class 3 piping not otherwise exempted by provisions of IWD-5223 to be hydrostatically tested during each Ten Year ISI Interval. The previously granted relief provided schedular extension for the completion of the Code-required RW System hydrostatic testing beyond the end of the Second Ten Year ISI Interval to the end of the 1995 RFO. The alternative testing measures proposed in this request will be completed within the approved schedule extension (i.e. prior to the end of the 1995 RFO).

IV. Basis for Relief: The subject RW System piping segments are located between each identified RW Pump discharge flange and the first isolation valve. These segments represent approximately 1% of the RW System piping subject to the Code-required hydrostatic test. The RW System is a low pressure system that is subject to a maximum of 185 psig by the hydrostatic test procedure. No unsatisfactory pipe conditions have been identified during the performance of the completed portion of the RW System hydrostatic testing. In order to hydrostatically test each of these segments, the applicable RW pump must be removed and a blind flange installed in place of the pump discharge flange to provide containment for the Code-required test pressure. This activity was previously performed on the corresponding segments of piping on the discharge of RW Pumps AC-10B and AC-10D when the pumps were removed for refurbishment.

When the Schedular Relief Request was submitted, the rate of RW pump degradation was expected to require refurbishment of pumps AC-10A and AC-10C prior to the 1995 RFO. This would have allowed hydrostatic testing of the subject pipe sections in conjunction with the pump refurbishment and in agreement with the schedular relief. However, changes in the maintenance and operation practices for the RW pumps have extended the life of AC-10A and AC-10C beyond the 1995 RFO, thus eliminating the most practical opportunities to perform the hydrostatic test on the subject piping prior to the 1995 RFO. It is undesirable from both a safety and resource consumption viewpoint to do the hydrostatic testing of the subject piping sections at a time when the pump is not being removed for maintenance or refurbishment. From a safety standpoint, the hydrostatic pressure testing of these piping segments would require physical removal and restoration of safety related components (including the RW pumps) which would be unavailable for service during this period. Resource consumption is a concern because the work would require extensive additional craft and engineering resources during the 1995 RFO. Compliance with the Code-required hydrostatic test of the subject RW piping would result in hardship and potential RW System degradation without a compensating increase in the level of quality and safety.

V. Alternative Testing: OPPD proposes to do a VT-2 visual inspection of the subject RW pipe segments after the system has been maintained at system operating pressure for a period of at least 4 hours. This test will be performed in lieu of the hydrostatic test only for the 2 pipe segments described in I. above. This inspection at system pressure will be performed prior to the end of the 1995 RFO consistent with the schedular relief previously granted. This alternative testing will, in conjunction with completion of the hydrostatic testing on the remainder of the RW System, complete the required testing of the RW System for the Second Ten Year ISI Interval.

VI. Justification for Granting of Relief: OPPD considers the proposed alternative inspections justified for the following reasons:

1. Approximately 99% of the applicable RW System piping has been or will be subjected to the Code-required hydrostatic testing by the end of the 1995 RFO. If no unsatisfactory piping is discovered in these tests, it is unlikely that any unsatisfactory piping would be found in a hydrostatic test of the subject pipe segments.

2. The proposed alternative testing will insure that there is no system through-wall leakage when the test is performed prior to the end of the 1995 RFO.

3. It is likely that any unsatisfactory piping conditions in the relatively low pressure RW System would be manifested as a pipe leak well before any catastrophic pipe failure. It is a practice at FCS for the responsible Operations personnel to take readings in the vicinity of the subject piping twice each shift. Any RW System leakage in the subject piping segments would be detected by these personnel during the shift rounds.

4. OPPD requested and received approval to implement Code Case N-498-1 during the Third Ten Year ISI Interval (References 5 and 6 of cover letter). Accordingly, OPPD will be doing system pressure tests of all Class 1, 2, and 3 systems in lieu of Ten Year hydrostatic tests. The alternative testing proposed in this request is thus consistent with the RW System testing to be performed in the Third Ten Year ISI Interval, and should therefore be adequate to complete the Second Ten Year Interval.

5. Performance of the Code-required hydrostatic testing of the subject pipe segments would require unscheduled disconnection and disassembly of the RW System to install blind flanges. The potential for additional equipment wear or damage from disconnection and disassembly of safety related equipment is not balanced by the minimal advantage of hydrostatically testing these short piping segments.

In summary, OPPD has determined that the proposed alternative system pressure testing in lieu of the Code-required hydrostatic testing for the subject pipe segments will provide reasonable assurance that unallowable inservice flaws have not developed in the subject RW System piping, and that the public health and safety will not be endangered

VII. Implementation Schedule: This request applies to the FCS Second Ten Year ISI Interval which ended on September 26, 1993. The alternative testing proposed in this request will be completed by the end of the 1995 RFO and will therefore be in compliance with the provisions of the previously approved schedular relief.

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