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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION OF THE THIRD YEAR INTERVAL INSERVICE INSPECTION PROGRAM PLAN, REVISION 3 AND ASSOCIATED REQUESTS FOR RELIEF

OMAHA PUBLIC POWER DISTRICT

FORT CALHOUN STATION, UNIT 1

DOCKET NO. 50-285

1.0 INTRODUCTION

The Technical Specifications for Fort Calhoun Station, Unit 1 state that the inservice inspection of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i).

Section 50.55a(a)(3) of Title 10 of the Code of Federal Regulations states that alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if (i) the proposed alternatives would provide an acceptable level of quality and safety or (ii) compliance with the specified requirements would result in hardship or unusual difficulties without a compensating increase in the level of quality and safety.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first ten-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) twelve months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The components (including supports) may meet the requirements set forth in subsequent editions and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein and subject to Commission approval. The applicable edition of Section XI of the ASME Code for the Fort Calhoun

Station, Unit 1 third 10-year inservice inspection (ISI) interval is the 1989 Edition, except that the extent of examination for Class 1, examination category B-J has been determined by the requirements of the 1974 Edition through summer 1975 Addenda (74S75) as permitted by 10 CFR 50.55a(b). The third 10-year interval began September 26, 1993, and ends September 25, 2003.

Pursuant to 10 CFR 50.55a(g)(5), if the licensee determines that conformance with an examination requirement of Section XI of the ASME Code is not practical for its facility, information shall be submitted to the Commission in support of that determination and a request made for relief from the ASME Code requirement. After evaluation of the determination, pursuant to 10 CFR 50.55a(g)(6)(i), the Commission may grant relief and may impose alternative requirements that are determined to be authorized by law, will not endanger life, property, or the common defense and security, and are otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed. In its letters dated November 13, 1992 and September 30, 1994, Omaha Public Power District submitted its Third Ten-Year Interval Inservice Inspection Program Plan, Revisions 0 and 1 respectively and the associated requests for relief for the Fort Calhoun Station, Unit 1. Additional information was provided by the licensee in its letter dated March 9, 1995. On May 10, 1995, a meeting between the NRC staff and the licensee was held to discuss the ISI program. Based on this discussion, the licensee submitted Revision 3 to the ISI program in its letter dated August 28, 1995.

2.0 EVALUATION

The staff, with technical assistance from its contractor, the Idaho National Engineering Laboratory (INEL), has evaluated the information provided by the licensee in support of its Third Ten-Year Interval Inservice Inspection Program Plan, Revisions 3 and associated requests for relief for Fort Calhoun Station, Unit 1.

3.0 CONCLUSION

Based on the information submitted, the staff adopts the contractor's conclusions and recommendations presented in the attached Technical Evaluation Report. The staff has concluded that no deviations from regulatory requirements or commitments were identified in the Fort Calhoun Station, Unit 1 Third Ten-Year Interval Inservice Inspection Program Plan, Revision 3.

In addition, the staff has concluded that for Request for Relief No. 1, Part 1 the licensee has proposed an acceptable alternative to regulatory requirement 10 CFR 50.55a(g)(6)(ii)(A), "Augmented Examination of Reactor Vessel." The licensee will examine the Item B1.10 reactor vessel shell welds to the extent possible. Compliance with that requirement would result in hardship or unusal difficulty without a compensating increase in quality and safety given that the significant portions examined were sufficient to ensure weld integrity. Therefore, the proposed alternative is authorized pursuant to 10 CFR 50.55a(a)(3)(ii).

In the case of Request for Relief 1, Parts 2 and 3 and Appendix 1C, the licensee has demonstrated that specific Section XI requirements are impractical and therefore pursuant to 10 CFR 50.55a(g)(6)(i) the relief is granted as requested. This relief is authorized by law, will not endanger life, property, or common defence and security and is otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

Furthermore, for Request for Relief in Appendix 1A the licensee's proposed alternative is authorized pursuant to 10 CFR 50.55a(a)(3)(i). The proposed alternative will provide an acceptable level of quality and safety.

The licensee's proposed alternative to use Code Case N-416-1 for the request for relief from pressure test requirements for repair, replacement and modification activities will ensure structural integrity of the welds and is authorized pursuant to 10 CFR 50.55a(a)(3)(ii) provided the root pass layer of butt and socket welds are surface examined. The use of Code Case N-416-1 is authorized until such time as the Code Case is published in a future revision of Regulatory Guide 1.147. At that time, the licensee should follow any provisions established for its use in Regulatory Guide 1.147.

Attachments: 1. Summary of Relief Requests
2. Technical Evaluation Report

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FORT CALHOUN STATION, UNIT 1
Third 10-Year ISI Interval

TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	System or Component	Exam Category	Item No.	Volume or Area to be Examined	Required Method	Licensee Proposed Alternative	Relief Request Status
RR-1 (Part 1)	Reactor Pressure Vessel	Augmented	NA	Reactor pressure vessel shell circumferential and longitudinal welds	Volumetric	Examine to the extent practical	Authorized
RR-1 (Part 2)	Reactor Pressure Vessel	B-A	B1.11 B1.12	Reactor pressure vessel shell circumferential and longitudinal welds	Volumetric	Examine to the extent practical	Granted
RR-1 (Part 3)	Reactor Pressure Vessel	B-A	B1.30	Shell-to-Flange Weld	Volumetric	Examine to the extent practical	Granted
Appendix 1C	Class 2 Piping	C-F-2	C5.81	Circumferential Branch Connection Welds Equal to or Greater Than 2 Inches Nominal Pipe Size	Surface	Examine similar branch connection weld on non-class portion of system	Granted
Appendix 1A	Weld Reference System	IWA-2600	NA	The Code requires that a reference system be established for all examination areas	NA	Implement Station Engineering Instruction SEI-27 that will require marking when examination is performed	Authorized
Request For Relief From Pressure Test Requirements Following Repairs and Replacements	Class 1, 2, and 3 Systems	IWA-4700(a) IWA-5214	NA	Class 1, 2, and 3 systems	Hydrostatic Pressure Test	Perform the hydrostatic test in accordance with Code Case N-416-1	Authorized Conditionally