



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO INSERVICE TESTING PROGRAM FOR PUMPS AND VALVES

OMAHA PUBLIC POWER DISTRICT

FORT CALHOUN STATION, UNIT NO. 1

DOCKET NO. 50-285

INTRODUCTION

The Code of Federal Regulation, 10 CFR 50.55a(g), requires that inservice testing (IST) of ASME Code Class 1, 2, and 3 pumps and valves be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable addenda, except where specific written relief has been requested by the licensee and granted by the Commission pursuant to 10 CFR 50.55a(a)(3)(i), (a)(3)(ii), or (g)(6)(i). In requesting relief, the licensee must demonstrate that (1) the proposed alternatives provide an acceptable level of quality and safety, (2) compliance would result in hardship or unusual difficulties without a compensation increase in the level of quality and safety, or (3) conformance with certain requirements of the applicable Code edition and addenda is impractical for its facility. The staff's findings with respect to the review of the licensee's IST program are contained in the Safety Evaluation (SE) dated December 22, 1988 and in this supplement to the SE.

EVALUATION:

In a letter dated July 29, 1988, Omaha Public Power District submitted the Revision 4 to the pump and valve IST Program for the Fort Calhoun Station. The SE dated December 22, 1988 evaluated the IST program up to revision 3. The staff with the help of our contractor, EG&G, evaluated the changes provided in Revision 4 against the requirements of 10 CFR 50.55a, Generic Letter No. 89-04, and the ASME Code, Section XI.

1. On pages 31 and 46, the test frequency for valves HCV-150 and -151, PORV block valves, has been changed from cold shutdown to quarterly. This test frequency is in accordance with that required by the Code for Category B valves and the staff position specified in Item 25 of Appendix C to the SE. This change is acceptable.
2. On page 35, Note #4 has been added to air accumulator check valves IV-239-C and IV-238-C. Note #4 states that these valves are located inside containment and will be tested during cold shutdown. Because the valves are inaccessible during power operation, the cold shutdown justification is acceptable. Paragraph IWV-3522 of the Code permits testing check valves during cold shutdown when quarterly testing during power operation is not practical.

3. Valves IV-344-C and -345-C have been deleted from the IST program because they do not perform a safety related function. These valves are instrument air check valves. The associated process valves on the containment spray header are Category B, normally closed, and fail open. The process valves are designed to open on a containment isolation signal with valves IV-344-C and -345-C in either the opened or closed positions. The valves IV-344-C and -345-C are not safety related and are, therefore, not required to be in the IST program.
4. Valves IV-438B-C and -438D-C have been added to the IST Program. The process valves associated with these instrument air check valves are the component cooling water supply and return for the reactor coolant pumps oil and seal coolers. The licensee is taking credit for being able to open these fail closed-process valves following a failure to provide cooling to the reactor coolant pumps seals to prevent damage to the seals; therefore, valves IV-438B-C and -438D-C must close to prevent loss of operating air. These check valves will be exercised at the same frequency as the process valves (during cold shutdowns when the reactor coolant pumps are stopped and RCS temperature is below 130°F and during refueling outages) to prevent reactor coolant pump seal damage. This technical justification is acceptable.
5. Valves IV-864-C and -865-C are deleted from the IST program because they do not perform a safety function. The process valves associated with these instrument air check valves are on the spray supplies to the containment ventilation charcoal filters. The process valves are Category B, normally closed, and fail closed. Because no credit is taken for these process valves to open, the valves IV-864-C and -865-C are not safety related and are, therefore, not required to be in the IST program.

Conclusion:

The safety significant updates in Rev. 4 to the IST program involve addition and deletion of components and changing the frequency of valve testing. None of the revisions relates to additional relief requests or changes to previous relief requests. The staff's review indicate that the changes in Rev. 4, dated July 29, 1988, is consistent with the requirements of 10 CFR 50.55a, Generic Letter No. 89-04, and the ASME Code Section XI.

The Revision 4 resolves Item 25 on the quarterly testing of PORV block valves identified in the list of IST program anomalies in SE, Appendix C to Revision 3. The licensee has committed to resolve the other anomalies in Appendix C as part of its ongoing surveillance test upgrade effort.

Dated: August 17, 1989

Principal Contributor: K. C. Dempsey