

Omaha Public Power District
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402/636-2000

December 19, 1990
LIC-90-0983

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

- References:
1. Docket No. 50-285
 2. Letter from OPPD (R. L. Andrews) to NRC (J. M. Taylor) dated April 10, 1987 (LIC-87-0086)
 3. Licensee Event Report LER 90-023, dated October 22, 1990 (LIC-90-0809)
 4. Letter from NRC (S. J. Collins) to OPPD (W. G. Gates) dated November 23, 1990

Gentlemen:

SUBJECT: Response to Notice of Violation - Inspection Report 50-285/90-38

Omaha Public Power District (OPPD) received the subject inspection report which identified one violation. The violation involved the failure to adhere to design requirements with respect to overpressure protection of safety injection (SI) piping. Please find attached OPPD's reply to the Notice of Violation in accordance with 10 CFR Part 2.201.

Reference 4 expressed a concern with the violation because it shows a lapse in the effectiveness of our enhancement program in the area of design basis reconstitution. As defined in the Design Basis Document, the functional requirement of the SI piping relief valves is "...to relieve the thermal expansion of liquid leaking past check valves SI-207, 211, 215, 219." The Design Basis document then describes the design configuration that meets this requirement. The intent of the Design Basis Reconstitution as defined by OPPD's response to the NRC Safety Systems Outage Modification Inspection (SSOMI) in Reference 2, was to identify the Design Requirements, document how the existing Design Configuration meets the requirements and verify that the safety related systems will still meet their functional requirements as configured today.

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The objectives of this program were not to question the original design implementation and testing performed to license the plant. Rather, the objective of the program was to verify that activities occurring since the issuance of the original license have not degraded the ability of the safety systems to perform their intended function. This objective is consistent with the NUMARC Design Basis Program Guidelines, the NRC position letter (dated November 9, 1990 from W. T. Russell to W. H. Rasin) and the OPPD Design Basis Reconstitution Project.

In regards to this issue OPPD will coordinate with the NRC Region IV offices to present the details of our Design Basis Reconstitution Program. This discussion will address the specifics of your concerns as noted in Reference 4.

An additional concern was expressed in Reference 4 with respect to OPPD's discarding of physical evidence that could have been analyzed to determine the specific root cause for the failure of the seal cartridge installed in Reactor Coolant Pump RC-3A. OPPD will submit a letter by January 31, 1991 describing the actions we plan to take to ensure that the appropriate controls have been implemented.

One final item noted in Reference 4 was related to the equipment tagging program. OPPD has committed to the completion of certain actions related to the boric acid batching issue of May 1990, which were specifically listed in Paragraph 8 of Reference 4, and these will be completed as noted.

If you should have any questions, please contact me.

Sincerely,



W. G. Gates
Division Manager
Nuclear Operations

WGG/sel

Attachment

c: LeBoeuf, Lamb, Leiby & MacRae
R. D. Martin, NRC Regional Administrator, Region IV
W. C. Walker, NRC Project Manager
R. P. Mullikin, NRC Senior Resident Inspector

ATTACHMENT

REPLY TO A NOTICE OF VIOLATION

During an NRC inspection conducted September 11 through October 22, 1993, a violation of NRC requirements was identified. The violation involved the failure to adhere to design requirements with respect to overpressure protection of safety injection piping. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the violation is listed below:

Technical Specification (TS) 4.3.3 states that "Emergency core cooling is provided by the Safety Injection System which consists of various subsystems, each with internal redundancy. Included in the Safety Injection System are four safety injection tanks, three high-pressure and two low-pressure safety injection pumps, a safety injection and refueling water storage tank, and interconnecting piping as shown in USAR Section 6."

Section 6.2.3.8 of the Updated Safety Analysis Report (USAR) states that the safety injection piping "conforms with the standards set forth in USAS B31.7...." Section 1.702.2.4 of United States of America Standard (USAS) B31.7-1968 states that "Under the conditions of relief or safety valve operations, the design pressure may be exceeded by 10 percent. The first system relief or safety valve shall be set to begin relieving at no higher than the design value."

Contrary to the above, the safety injection piping, bounded by the safety injection tank (SIT) discharge isolation valves and the first check valve downstream of the above isolation valves, did not conform to the design requirements of USAS B31.7 in that the relief setpoints of Relief Valves SI-278, -279, -280, and -281 were found to be set at 395 psig, whereas the piping they serve was designed to only 250 psig, with an initial hydrostatic test to 1.25 times the design value.

OPPD RESPONSE:

1. The Reason for Violation, or if Contested, the Basis for Disputing the Violation

OPPD admits to the violation as stated. The relief setpoints of relief valves SI-278, -279, -280, and -281 are not in accordance with USAS B31.7-1968 requirements for the piping design pressure defined in the original code hydrostatic test for the piping in question.

The violation is attributed to design and analysis deficiencies by the original plant Architect/Engineer. Records of the original relief valve engineering specification, dated February 25, 1971, and the original piping code hydrostatic test, dated October 15, 1972, indicate this condition has existed since plant construction.

2. The Corrective Steps That Have Been Taken and the Results Achieved

OPPD has taken the following corrective steps:

- a. The piping stress analysis was reviewed for the increased pressure and found to be acceptable.
- b. A walkdown of the affected piping was performed with no visible deformation or damage to the piping or hangers noted.
- c. Safety Analysis for Operability (SAO) 90-10 was issued on October 3, 1990 to document the operability determination for the SI piping in question.
- d. The SI System Training Manual has been revised to reflect the actual relief valve setpoint.
- e. OPPD system engineers have been briefed on this event to heighten their sensitivity to other similar discrepancies which may exist.

3. The Corrective Steps That Will Be Taken to Avoid Further Violations

The following corrective steps will be taken:

- a. A hydrostatic pressure test will be performed on the applicable sections of piping during the 1991 refueling outage to establish and confirm a design pressure of 395 psig. Applicable design basis documents will be updated.
- b. The ISI Program has been upgraded to include testing of safety related relief valves. These valves will be tested on a frequency of at least once every five years in accordance with Relief Valve Surveillance Test Procedure PE-ST-VX-3001. During the verification and validation of this procedure, the relief valve setpoints will be compared to existing design basis documentation in order to ensure that the setpoints are consistent with the design basis documents. This verification and validation of PE-ST-VX-3001 is expected to be completed by March 31, 1991.

4. The Date When Full Compliance Will Be Achieved

OPPD will be in full compliance prior to start-up from the 1991 refueling outage.