ACRSR-1927

February 8, 2001

Dr. William D. Travers
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Dr. Travers:

SUBJECT: PROPOSED RESOLUTION OF GENERIC SAFETY ISSUE-152, "DESIGN BASIS FOR VALVES THAT MIGHT BE SUBJECTED TO SIGNIFICANT BLOWDOWN LOADS"

During the 479th meeting of the Advisory Committee on Reactor Safeguards, February 1-3, 2001, we reviewed the proposed resolution of Generic Safety Issue (GSI-152), "Design Basis for Valves that Might be Subjected to Significant Blowdown Loads." During this review, we had the benefit of discussions with representatives of the NRC staff and of the documents referenced.

Conclusion

We agree with the staff's proposed resolution of GSI-152.

Discussion

In our letter dated November 20, 1989, we raised a concern that although a valve might meet the NRC-approved design bases, these design bases might not address the need for the valve to close against the differential pressure resulting from a large high-energy pipe break. To address this concern, the staff established GSI-152. Our concern was broader than that stated in GSI-87, "Failure of HPCI Steam Line Break Without Isolation" and Generic Letter (GL) 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance." GL 89-10 specifically focused on the ability of motor-operated valves (MOVs) to operate under design basis conditions.

The staff issued Supplement 3 to GL 89-10 to provide guidance to licensees for ensuring the capability of containment isolation valves in the reactor water cleanup, high pressure coolant injection, and the reactor core isolation cooling systems in boiling water reactor plants to isolate the largest credible downstream pipe break.

The industry established programs to understand and correct valve operating weaknesses. Guidelines were issued for determining the design basis differential pressure for MOVs within the scope of GL 89-10.

In the early 1990s, the NRC staff conducted inspections of the licensees' GL 89-10 programs including evaluations of the design bases. These inspections confirmed that deficiencies in the design bases and in valve operating performance had been identified and corrected. These results were shared with the industry in Information Notices 96-48, "Motor-Operated Valve Performance Issues," and 97-07, "Problems Identified During Generic Letter 89-10 Closeout Inspections."

Based on the issuance of Supplement 3 to GL 89-10 and subsequent staff and industry initiatives, we support the staff's proposed resolution of GSI-152.

Sincerely,

/RA/

George E. Apostolakis
Chairman

References :

1. Memorandum dated January 18, 2001, from Michael E. Mayfield, Office of Nuclear Regulatory Research, NRC, to John T. Larkins, Executive Director, Advisory Committee on Reactor Safeguards, Subject: Transmittal of GSI-152 Close-out Report.

2. Letter dated April 23, 1993, from Paul Shewmon, ACRS Chairman, to James M. Taylor, Executive Director for Operations, NRC, Subject: Prioritization of Generic Safety Issue 152, "Design Basis for Valves that Might be Subjected to Significant Blowdown Loads."

3. Report to Kenneth M. Carr, Chairman, U.S. NRC from Forrest J. Remick, Chairman ACRS, Subject: Proposed Resolution of Generic Safety Issue 87, "HPCI Steam Line Break Without Isolation," dated November 20, 1989

4. U. S. Nuclear Regulatory Commission, Generic Letter 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance," dated June 28, 1989.

5. U. S. Nuclear Regulatory Commission, Generic Letter 89-10, Supplement 3, "Consideration of the Results of NRC-sponsored Tests of Motor-Operated Valves," dated October 25, 1990.

6. U. S. Nuclear Regulatory Commission, Information Notice 96-48, "Motor-Operated Valve Performance Issues," dated August 21, 1996.

7. U. S. Nuclear Regulatory Commission, Information Notice 97-07, "Problems Identified During Generic Letter 89-10 Closeout Inspections," dated March 6, 1997.