

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-293/82-28

Docket No. 50-293

License No. DPR-35 Priority - Category C

Licensee: Boston Edison Company

800 Boylston Street

Boston, Massachusetts 02199

Facility Name: Pilgrim Nuclear Power Station

Inspection At: Pilgrim Nuclear Station and Corporate Office

Inspection Conducted: October 12 - 14, 1982

Inspector: P. K. Eapen
P. K. Eapen, Ph.D., Reactor Inspector

11/12/82
date signed

Approved by: L. H. Bettenhausen
L. H. Bettenhausen, Ph.D., Chief, Plant
Systems Section, EPB, DETP

11/17/82
date signed

Inspection Summary:

Inspection on October 12 - 14, 1982 (Report No. 50-293/82-28)

Areas Inspected: Routine, announced inspection of the Scram Discharge Volume and associated piping design. The inspection involved 12 inspection hours at the site and 12 inspection hours at the corporate office by one region-based inspector.

Results: No violations were identified in the inspected area.

Details

1. Persons Contacted

- *J. Ashkar, Deputy Manager, Nuclear Engineering
- *J. Ballentine, Vice President, Operations
- *R. Butler, Manager, Nuclear Engineering Department
- *R. Fairbank, Group Leader, Fluid Systems and Mechanical Components
- *T. Ferris, Licensing Engineer
- *J. Keyes, Senior Licensing Engineer
- *H. O'Connor, Engineer
- *W. Ringen, Senior System Safety Engineer
- *R. Weiler, Consultant, Teledyne

NRC

- *J. Johnson, Senior Resident Inspector
- H. Eichenholtz, Resident Inspector

The inspector also held discussions with other members of the Power Station and corporate personnel.

*Denotes those present at the exit interview conducted on October 14, 1982.

2. Follow-up on Licensee Event Report (LER) 82-005 and IE Bulletin 80-17

In light of IE Bulletin 80-17, the licensee undertook a review of the Scram Discharge Volume Piping. The licensee's contractor performed a system walkdown of the Scram Discharge Volume Piping in January 1982. The contractor identified several discrepancies between as-built and as-designed configuration. After a detailed analysis of the identified differences, the licensee issued LER 82-05 on February 26, 1982. The LER reported the findings of the contractor's walkdown in accordance with the facility's Technical Specifications. In the above LER, the licensee stated that eight pipes were stressed above the code allowables and interim station operability limits set forth in IE Bulletin 79-14. These lines were modified during the last refueling outage to bring the stresses within the operability limit.

At present, the licensee's contractors are performing the necessary analysis for upgrading the piping system associated with the Scram Discharge Volume. A preliminary and conservative analysis of the SDV piping system identified that the thermal stress exceeded the code allowable at the point the line from the Hydraulic Control Unit meets the Scram Discharge Volume. As stated in licensee's letter dated June 4, 1982, to Mr. D. B. Vassallo of NRC, the licensee intends to upgrade the Scram Discharge Volume piping to meet the requirements of NUREG 0803 by December 1983.

The inspector reviewed the licensee's bases for continued operation prior to the completion of the upgrade. The licensee stated to the inspector that a break at the identified high thermal stress location would not prevent the control rod drive system from performing the Safe Shutdown (Scram) function. As stated in BECo Letter No. 82-160, dated June 4, 1982, the consequences of the pipe break, if it occurred prior to the piping system modification, will be well within the bounds of the reasoning presented in NUREG 0803.

The licensee's representatives stated that the engineering documents, such as drawings, calculations, and computer programs will be obtained from the contractors and made available for NRC review. The inspectors stated that detailed review of the above design documents would be conducted in future NRC inspections. This item will be followed under open item 50-293/82-10-04).

Based on the above, the inspector concluded that the licensee's actions in this matter were responsive and the scheduled actions for the future were consistent with NUREG 0803 and prudent piping system analysis methods.

In addition, it was confirmed that operation prior to the completion of detailed analysis and modification did not constitute an unreviewed safety question, since the consequences of this operation are bounded by the reasonings presented in NUREG 0803.

3. Exit Interview

At the conclusion of the inspection, the inspector met with the licensee's representatives denoted in paragraph 1 to summarize the inspection findings as detailed in this report. The licensee acknowledged the inspector's statements.