

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-293/84-27

Docket No. 50-293

License No. DPR-35

Licensee: Boston Edison Company

800 Boylston Street

Boston, Massachusetts 02199

Facility Name: Pilgrim Nuclear Power Station

Inspection At: Plymouth and Braintree Massachusetts

Inspection Conducted: August 27-31, 1984

Inspectors: P. K. Eapen
P. K. Eapen, Ph.D., Lead Reactor Engineer

9/18/84
date

W. Oliveira
W. Oliveira, Reactor Engineer

9/18/84
date

Approved by: A. T. Gody
A. T. Gody, Chief, Management Program
Section

9/18/84
date

Inspection Summary: Unannounced Inspection Conducted on August 27-31, 1984
(Report No. 50-293/84-27)

Areas Inspected: Design, Design Changes and Modification Programs. The inspection involved 56 inspector-hours on site and 16 inspector-hours at the Braintree Engineering Office by two region based inspectors.

Results: No violations were identified.

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DETAILS1. Persons ContactedBoston Edison Company (BECo)

- J. Ashkar, Nuclear Engineering Deputy Manager
- *H. Balfour, Nuclear Operations Support Department (NOSD) Group Leader
- *H. F. Brannan, Quality Assurance (QA) Manager
- R. Butler, Nuclear Engineering Department Manager
- W. Clancy, Senior System and Safety Analysis Engineer
- *J. F. Crowder, Senior Compliance Engineer
- B. Damon, Pilgrim Document Control Supervisor
- R. Fairbanks, Fluid Systems and Mechanical Components Group Leader
- *E. T. Graham, Compliance Group Leader
- *J. Jeffries, Acting Deputy Manager, Nuclear Engineering Department (NED)
- *M. Lenhart, Regulatory Affairs; Programs Engineer
- *C. Mathis, Nuclear Operations Manager
- *J. Mattia, Audit Group Leader
- G. Meleris, Senior Mechanical Engineer
- D. Mills, Senior Construction Engineer
- G. O'Connor, Senior Mechanical Engineer
- J. Powlak, Power Systems Group Leader
- S. Roberts, Principle Mechanical Engineer
- D. Sparks, Project Manager for Environmental Qualification
- G. Whitney, Regulatory and Programs Engineer
- D. Whitney, Methods and Training Supervisor
- *E. Ziemianski, Nuclear Operations Support Department Manager

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- J. Johnson, Senior Resident Inspector
- *M. McBride, Resident Inspector

The inspectors also interviewed other licensee personnel during the course of the inspection.

*Denotes those present at the exit interview.

2. Licensee's Action on Previous Inspection Findings

(Closed) Unresolved Item (293/83-11-01) and Inspection follow-up Item (293/83-26-01): Record retrievability. The inspector reviewed the records of several randomly selected PDC packages in accordance with Pilgrim Document Control Center Work Instructions (W.I.) 2.60, 2.62, and 2.63. All the records for the PDCs were readily retrievable. Based on this review, these items are closed.

(Closed) Noncompliance (293/84-11-01): Failure to contain falling slag in accordance with Station Procedure 1.5.5. The inspector verified that the licensee instituted all corrective actions as stated in BECo letter dated July 2, 1984. The item is closed.

3. Design, Design Changes and Modifications

3.1 References

- 10 CFR 50.59
- 10 CFR 50 Appendix B
- Updated Final Safety Analysis Report Appendix D
- Regulatory Guide 1.33
- ANSI N18.7 - 1976
- Regulatory Guide 1.64 (Oct. 1976)
- ANSI N45.2.11 Technical Specifications
- Boston Edison Quality Assurance Manual
- Nuclear Operations Procedure 83A6
- Nuclear Operations Procedure 83E1
- Nuclear Engineering Department Procedure 3.02
- Nuclear Operations Departments Pilgrim Nuclear Power Station Procedure No. TP 83-43

3.2 Activities Reviewed

- MCC Enclosures (PDCR 84-18)
- GEMAC Transmitter Replacement (PDCR 83-11)
- Primary Containment Purge/Vent Isolation Valves - Replacement (PDCR 83-25)
- High Pressure Coolant Injection (HPCI) Discharge and Turbine Exhaust Valve Replacement (PDCR 83-28)
- Torus Temperature (PDCR 81-04D)
- Reactor Protection System Power Supply Protection (PDCR 81-20)
- Reactor Core Injections Cooling (RCIC) Automatic Restart Modifications (PDCR 81-48)

3.3 Details

The design change program was reviewed against the requirements of the documents identified in paragraph 3.1. The modifications identified in paragraph 3.2 were reviewed to ascertain that the licensee had established the following:

- A formal method for initiating a design change,
- Measures to control design, design reviews and safety evaluations,
- A method to assure that a change does not constitute an unreviewed safety question as defined in 10 CFR 50.59,
- A method to assure that the applicable regulatory requirements and industry standards are included in the design,
- Measures to clearly identify and document responsibilities of the organizations and individuals participating in the design change activities,
- Measures to control changes to previously approved documents, recall obsolete documents and release and distribute approved documents,
- Measures to assure that the design change details are promptly translated into operating procedures, training programs and permanent plant documents such as drawings and system descriptions,
- Measures to control interfaces among organizations participating in design change activities, and
- Measures to control temporary changes in accordance with the technical specification and 10 CFR 50.59 requirements.

In addition, the inspectors witnessed the installation of the GEMAC Transmitters and the Primary Containment Purge/Vent Valves. The completed RCIC Automatic Restart activity was reviewed to determine the effectiveness the program implementation.

3.4 QA/QC Involvement in Design Change Activities

Plant Design Changes (PDCs) are controlled documents prepared by Licensee's (BECo) Nuclear Engineering Department and reviewed by the BECO's QA Department. The onsite QC group reviews the PDCs and prepares an inspection plan with hold (witness) points as necessary. QC groups also monitor and perform surveillance of in-process work of contractors as well as onsite personnel.

BECo QA Audit Group had just completed its annual audit on August 22, 1984 of BECO's design control and related activities. All previous findings were verified as corrected and no new findings were reported. The audit was conducted in accordance with QA Procedures Nos. 18.01, 18.02 and the audit plan and the check lists attributes were found adequate. A Supplier Audit (No. 84-15) was also conducted in April, 1984. The Supplier was Bechtel Engineering who performs some of the design control and modification work for BECO. The audit reported no

new findings and that all previous findings were corrected. The QA Department is also responsible for compiling and reporting trends. Inputs for the semi-annual Trend Report included: LERs; Nonconforming Reports (NCRs); Failure and Malfunction Reports; Deficiency Reports (Audit Findings); and Surveillance findings.

3.5 Findings

Within the scope of this inspection, the inspectors noted that the activities were conducted in accordance with the established program and procedures.

No violations were identified.

4. Entrance and Exit Meetings

Licensee management was informed of the scope of the inspection during the entrance meeting on August 27, 1984. The results of the inspection at the Nuclear Engineering Department were discussed with the Manager, Nuclear Engineering Department on August 29, 1984. The results of the inspection at the site were discussed with station management August 30, 1984.

At no time during this inspection was written material provided to the licensee by the inspectors.