

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-293/85-05

Docket No. 50-293

License No. DPR-35

Priority -

Category C

Licensee: Boston Edison Company M/C Nuclear
800 Boylston Street
Boston, Massachusetts 02199

Facility Name: Pilgrim Nuclear Power Station

Inspection At: Plymouth, Massachusetts

Inspection Conducted: March 19 - 21, 1985

Inspectors: Harvey Zibulsky
H. Zibulsky, Chemist

4-22-85
date

Approved by: W. J. Pasciak
W. J. Pasciak, Chief, BWR
Radiation Safety Section

4-23-85
date

Inspection Summary: Inspection on March 19 - 21, 1985 (Report No. 50-293/85-05)

Areas Inspected: Routine unannounced inspection of the licensee's nonradiological chemical program. Areas reviewed included: quality control of analytical measurements, analytical procedures, staffing and training. The inspection involved 24 hours on-site by one region based inspector.

Results: The licensee was in compliance with NRC requirements examined during the inspection.

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DETAILS

1. Individuals Contacted

- * P. Mastrangelo, COE Acting Station Manager
- * R. Smith, Acting Chief Chemical Engineer
- * C. Grevenitz, Chemical Engineer
- * J. Crowder, Sr. Compliance Engineer
- * J. Gerety, S and SA
- C. Mathis, Nuclear Operations Manager
- E. Graham, Compliance Group Leader

* Denotes those present at the exit interview.

The inspector also interviewed other licensee employees including members of the chemistry staff.

2. Laboratory Quality Control

The adequacy and effectiveness of the licensee's nonradiological chemistry quality control program was reviewed against the requirements of Technical Specification 6.8, USNRC Regulatory Guide 1.33, ANSI N18.7-1972, and standard industrial practices.

The licensee's performance relative to these requirements and standards was determined by review of records, discussions with licensee personnel, and observations by the inspector.

For the analyses observed, calibration standards were used over the full range of operation. The laboratory was using a $\pm 10\%$ relative acceptance criteria. The licensee will generate 2 control charts. One chart will demonstrate a ± 2 sigma and ± 3 sigma relative to show accuracy and another chart of ± 2 sigma and ± 3 sigma absolute to demonstrate precision.

No violations were identified.

3. Analytical Procedures

The inspector reviewed the licensee's analytical procedures in the nonradiological chemistry area. The procedures are required by sections 3.4, 3.6, and 6.8 of the Technical Specifications. The inspector verified conformance to these procedures by review of licensee records and by observation of the analyses.

The inspector observed the analyses of boron by potentiometric titration, chloride and fluoride by Dionex and copper, chromium, nickel, and iron by Plasma Atomic Absorption Spectrophotometry. The procedures and instruments used for the analyses are generally adequate.

No violations were identified.

4. Staffing and Training

The inspector reviewed the licensee's organization with respect to staffing in the chemistry area. The laboratory has recently been reorganized and is presently being staffed. The radiological group is now separate from the chemical group. The chemical group is headed up by a Chief Engineer who has 2 Sr. Chemical Engineers and 2 Chemical Engineers responsible to him. The Technicians report to the Chemical and Sr. Chemical Engineers. There is a good communication among the laboratory personnel and an out of control analysis in the laboratory can be enacted upon without delay.

The inspector reviewed the training and qualification program for the Chemical Technicians. The training consists of an on-the-job program. When the Technician becomes proficient in a procedure or technique, a sign-off sheet is completed. The Chemical Engineer does the final testing. Also, results of an interlaboratory standards program is evaluated and documented for analyst qualification.

No violations were identified.

5. Exit Interview

The inspector met with the licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on March 21, 1985. The inspector summarized the purpose and scope of the inspection and the findings. At no time during this inspection was written material provided to the licensee by the inspector.