U.S. NUCLEAR REGULATORY COMMISSION

REGION 1

REPORT NO: 50-293/92-19

DOCKET NO: 50-293

LICENSE NO: DRP-35

LICENSEE: Boston Edison Company
800 Boylston Street
Boston, Massachusetts 02199

FACILITY: Pilgrim Nuclear Power Station

LOCATION: Plymouth, Massachusetts

INSPECTION DATES: August 24 - 27, 1992

LEAD INSPECTOR: A. Finkel — Sept 9 1992

A. Finkel, Senior Reactor Engineer
Performance Programs Section
Operations Branch, DRS

Date

APPROVED BY: — 9/11/92

Norman J. Blumberg, Chief
Performance Programs Section
Operations Branch, DRS

Date

INSPECTION SUMMARY: Inspection from August 24 - 27, 1992 (Inspection Report No. 50-293/92-19)

AREAS INSPECTED: Announced safety inspection by one region-based inspector to review the procurement program and the implementing documents associated with this program. The major areas of the procurement program that the inspector reviewed were the Component Engineering Function, Supplier Audit Program, Procurement Quality Engineering, Material Controls, Shelf Life Program and Quality Procurement Audits.

RESULTS: No safety issues or violations of NRC requirements were identified during this inspection. The procurement program was implemented, as described in the licensee plant procedures and complied with the Final Safety Analysis Report (FSAR). A Supplier

Approved List (SAL) is issued and maintained as specified in their site procurement procedures. The Procurement Engineering Division is providing technical requirements in the procurement documents and reviews purchase orders for technical adequacy. The Procurement Quality Engineering Division reviews the procurement documents for program quality assurance requirements and maintains the SAL program through their audit system. The Material Division maintains the warehouse and stores program. The warehouse was clean, with materials and equipment stored as described in warehouse procedures. A quality audit of the procurement program was in progress at the time this inspection was being performed. The completion of the audit is scheduled for the end of August 1992.

DETAILS

1.0 PERSONS CONTACTED

Attachment 1 provides a listing of persons contacted during the inspection.

2.0 INSPECTION SCOPE (38701)[1]

The inspector evaluated the implementation of the procurement program for this site as described in the documentation listed in Attachment 2 of this report. In addition, the inspector reviewed the procurement plan for compliance with Section 17.2 of the revised Final Safety Analysis Report (FSAR), ANSI N45.2.13-1976, "QA Requirements for Control of Procurement and Services" and 10 CFR 21, "Reporting of Defects and Noncompliance."

2.1 Procurement Program

The Pilgrim Nuclear Power Station procurement program is described in their March 1992 FSAR revision. This revision placed the quality and component engineering organizations under the direction of the Materials and Component Engineering Section Manager (M&CEM). This change in placing quality type responsibilities in a procurement function is described in FSAR Revision 23, February 1992, to the Boston Edison Company Nuclear Quality Assurance Manual. To ensure that the procurement quality component engineering function maintains the independence that they had while reporting to the QA organization, the inspector reviewed both the personnel and the procurement requirements placed on them by the M&CEM function. The inspector determined that this revision has not affected the personnel or the independence of the Procurement Quality Engineering Division. Also, to insure that the present revision is being accomplished as described in the FSAR revision the, Quality Assurance organization was performing an audit of the M&CEM changes. The QA audit is to be completed by August 31, 1992.

2.2 Procurement Quality Engineering Program (PQE)

The Supplier Audit Program (SAP) is described in Procurement Quality Engineering Procedures (QEP's) 7.03, "Supplier Procedure Review," 7.04, "Evaluation of Suppliers," 707, "Commercial Grade Suppliers Surveys," and 7.08, "Review and Approval of Supplier QA Programs." These procedures describe the requirements for planning and conducting supplier audits, establishing and maintaining the approved suppliers list (ASL) and initiation and follow-up of issues identified during the audit. The Procurement Quality Engineering Division is responsible for maintaining and implementing this program. The ASL is updated based on the results of licensee's audits and the use of audits performed by the New England Audit Group (ECNE). ECNE audits consist of reports issued by the New England utilities

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[1]The parenthetical notation following the paragraph title denotes the NRC inspection module that was used by the inspector in conducting this inspection. The module title is "Procurement Program."

which this licensee is a member of the audit group. The inspector verified that the ASL is issued and maintained in an updated status. During this inspection, the inspector witnessed the ASL being updated using audit information based on an ECNE report. The Procurement Quality Engineering Division (PQED) manager controls the ASL data base and has the responsibility for maintaining and issuing this information to the engineering and procurement staff. The Quality Assurance organization, as part of the site QA program, performs a yearly audit of the PQED function and the ASL program. The QA audit of the Procurement function was in progress during this inspection, therefore the inspector could not review the audit results.

The inspector selected the following source inspection reports to verify that the supplier selected were on the approved supplier list (ASL) and that the received material complied with the purchase order requirements.

- Gould Pumps	PO.STR-120764
- Carboline (Pyrocrete 301)	PO.STR-125291
- Formweld Fitting CO.	PO.STR-123663
- Briggs Testing	PO.STR-85640

In each of the above receiving inspection reports, the licensee inspection personnel verified that the received items complied with the purchase order requirements. The inspector verified that quality control hold point requirements identified in the purchase order documentation were witnessed, dated, and signed by the source inspector.

2.3 Component Engineering

The Component Engineering Division (CE) is now reporting to the Materials and Component Engineering Section (M&CEM) Manager. Component Engineering personnel are to ensure that purchase orders contain the technical and quality requirements that have been specified by the Nuclear Engineering Organization during the construction and operation of this site. CE also evaluates supplier requests from purchase order requirements as the need arises.

The inspector reviewed the purchase orders list in paragraph 2.2 to insure that the requirements of procedures PQE 3.01, "Review of Specification and Engineering Scopes of Work," PQE 4.01, "Review of Preliminary Procurement Documents Prepared by BECo," and PQE 4.07, "Commercial Grade Item Evaluation" were considered during the PO reviews. The inspector verified that the requirements of the above PQE procedures were considered during the CE preparation of these PO's.

2.4 Material Control Shelf Life Program

The shelf life requirement (where applicable) is listed in the purchase order documentation, upon receipt of the PO item. Upon acceptance of the material, receiving personnel record

the shelf life value on a Material Conformance form (NO.3828). This form goes with the material to the storage area where the stores personnel record the item data into a data bank after placing the items in their storage locations. The inspector selected five Q-listed shelf life items from the material storage listing to verify warehouse location, storage condition, shelf life values and item acceptance tags. In each of the five items listed below, the inspector determined that their data packages complied with the PO requirements and that their storage condition was maintained as required by specification.

STOCK NO.	SUPPLIER	CAT.	SHELF LIFE DATE
470013	SOR,INC.	Q	12/31/2008
47062 2	ITT Barton	Q	11/10/1993
4700589	GE Silicones	Q	07/05/92*
480370	Mobil	Q	01/03/94
481159	Could Pump	Q	03/06/2007

*Stock No. 4700589 had been pulled a week earlier from stock and put on hold for engineering disposition due to shelf life date expiring the end of August, 1992.

The inspector toured the receiving and warehouse areas to verify that the requirements of Procedure No. 13.06, "Instorage Maintenance Program" were being implemented, were understood by the stores personnel and that the level of the storage areas were in accordance with site procedures. The inspector determined that the stores personnel were knowledgeable of their procedure requirements and that the shelf life program was maintained as described in their site procedures. The warehouse area was clean and well maintained with controlled hold areas marked as listed on the warehouse layout drawings.

2.5 Quality Assurance Procurement Audit

The quality assurance program requires an audit of the procurement program on a yearly bases; however, due to the organization change of placing some quality type functions within the procurement area, the Quality Assurance Division scheduled an audit of the procurement program nine months early. This audit which began August 7, 1992, is to be completed on August 31, 1992.

3.0 NRC BULLETIN NO. 92-01,"FAILURE OF THERMO-LAG 330 FIRE BARRIER SYSTEM TO MAINTAIN CABLING IN WIDE CABLE TRAYS AND SMALL CONDIUTS FREE FROM FIRE DAMAGE." (92701)[2]

On June 24, 1992, the NRC issued Bulletin 92-01 to notify all Licensee's of the failures in fire endurance testing associated with the Thermo-Lag 330 fire barrier system that is installed

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[2]The paraenthetical notation following the paragraph title denotes the NRC inspection Module that was used by the inspector in conducting this inspection. The module title is "Follow-up."

to protect safe shutdown capability of plant systems. This Bulletin requested all operating reactor licensees to take the recommended actions described in Bulletin 92-01. This Bulletin also required that these licensees provide the U.S. Nuclear Regulatory Commission (NRC) with a written response describing their actions taken associated with this Bulletin.

This licensee's response to Bulletin 92-01 was that they do not have any Thermo-Lag fire material installed at this site. During a review of the ASL, the inspector verified that Thermal Science, Inc., is not on the site ASL. The inspector also verified that "Thermo-Lag" material manufactured by Thermal Sciences, Inc., is not used at this site in their fire protection design. To verify the type of fire barrier material used at this site, the inspector reviewed the following documentation:

- Specification M-571 "Fire Barrier Penetration Seal Technology"
- Specification M-505 "Structural Seal Fire Proofing"
- Specification M-570 "Fire Barrier Penetration Seal System"

The inspector also verified that contractors performing modification tasks at this site did not use "Thermo-Lag" material in their work.

4.0 CONCLUSION

The inspector determined that the procurement program for this site is implemented as described in their procedures and is meeting the requirements of their Technical Specifications, Final Safety Analysis Report (FSAR) and 10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." The organization changes of placing the Procurement Quality Engineering Division and Component Engineering Division personnel in the Material and Component Engineering Section does not appear to have compromised the independent evaluation of the purchasing documentation. The Quality Assurance Division decision to audit the changes in the Procurement Program that were made to the Quality Assurance Manual in June 29, 1992 is a positive step by management to insure that their quality effort in the procurement program is not compromised. The inspector also noted the improvements in the warehouse facility for stocking and storing materials and the increased cleanliness of the area. No safety issues were identified during this inspection.

5.0 MANAGEMENT MEETINGS

Licensee management was informed of the scope and purpose of the inspection at an entrance meeting conducted on August 24, 1992. The findings of the inspection were periodically discussed with the licensee personnel during the course of the inspection. The inspector met with the licensee representatives (denoted in Attachment 1) at the conclusion of the inspection on August 27, 1992. The inspector summarized the scope and findings of the inspection as described in this report.

Attachments:
1. Persons Contacted
2. Documentation Reviewed

ATTACHMENT 1

PERSONS CONTACTED

BOSTON EDISON COMPANY

*E. Boulette, Vice President Nuclear Operations/Station Director
*N. Desmond, Compliance Division Manager
*F. Farmulari, Quality Assurance Department Manager
*E. Kraft,Jr., Plant Manager
*D. McCloskey, Materials & Component Engineering Section Manager
*T. McElhinney, Senior Compliance Engineer
*W. Rothert, Director, Nuclear Engineering
*L. Simons, Division Manager Procurement Quality Engineering
*R. Williams, Division Manager Component Engineering

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*A. Kern, Resident Inspection

*Denotes those present at the exit meeting held on August 27, 1992.

During the course of this inspection, the inspector contacted other members of the licensee's Technical, Operations, Maintenance, Quality and Procurement staff.

ATTACHMENT 2

LICENSEE DOCUMENTATION REVIEWED

QUALITY ASSURANCE PROCEDURES AND REGULATORY GUIDES

Boston Edison Company Quality Assurance Manual, Revision 27, June 29, 1992
Regulatory Guide 1.123, Revision 1, 1977, "QA Requirements for Control of Procurement of Equipment, Materials, and Services for Nuclear Power Plants."

MATERIAL AND COMPONENT ENGINEERING SECTION PROCEDURES(M&CES)

PROCUREMENT QUALITY ENGINEERING PROCEDURES(PQE'S)

PQE 3.01 "Review of Specification and Engineering Scopes of Work"
PQE 4.01 "Review of Preliminary Procurement Documents By BECO"
PQE 4.07 "Commercial Grade Item Evaluation"
PQE 7.01 "Receipt Inspection"
PQE 7.03 "Supplier Procedure Review" (Was QEP 7.03)
PQE 7.04 "Evaluation of Suppliers" (Was QEP 7.04)
PQE 7.05 "Preparation and Issuance of The BECO PQE Approved Supplier list"
PQE 7.07 "Commercial Grade Supplier Surveys" (Was QEP 7.07)
PQE 7.08 "Review and Approval of Supplier QA Programs" (Was QEP 7.08)
PQE 7.10 "Audits of Suppliers"
PQE 10.01 "Conduct and Reporting of Source Inspections"

PURCHASE ORDERS/SOURCE INSPECTION REPORTS

P.O. No. STR125291, "Pyrocrete 301-Fire Proofing Material" (Carboline)
P.O. No. STR120764, "Gould Pumps"
P.O. No. STR123663, "Formweld Fittings"
P.O. No. 85640, "Briggs Testing"

ENGINEERING SPECIFICATION

M-571, "Fire Barrier Penetration Seal Technology"
M-505, "Structural Steel Fire Proofing"
M-570, "Fire Barrier Penetration Seal System"

SHELF LIFE STOCK ITEMS

SN.-470013, "SOR,INC" 12/31/2008
SN.-470022, "ITT Barton" 11/10/1993
SN.-4700589, "GE Silicones" 07/05/1992
SN.-480370, "Mobil" 01/03/1994
SN.-481159, "Gould Pump" 03/06/2007