

October 19, 1995

Mr. E. Thomas Boulette, PhD
Senior Vice President - Nuclear
Boston Edison Company
Pilgrim Nuclear Power Station
Rocky Hill Road
Plymouth, Massachusetts 02360

SUBJECT: PILGRIM STATION PLANT PERFORMANCE REVIEW RESULTS

Dear Mr. Boulette:

On October 3, 1995, Region I performed a Plant Performance Review (PPR) for the Pilgrim Nuclear Power Station, covering the period from October 9, 1994 to September 30, 1995. The PPR consists of a review of inspection findings, significant events, and other information that related to your organization's performance during the subject review period. The purpose of this process is to review nuclear plant performance for trends and to plan future inspection activities at your facility. This was the second review for the current Systematic Assessment of Licensee Performance (SALP) period and this process will be performed for all plants approximately every six months so that two PPRs will occur during the approximate 18-month (SALP) cycle.

Overall, we concluded that your organization exhibited a strong safety focus during normal operations; and, in particular, during the 1995 refueling outage in which a number of safety related work accomplishments resolved potential safety problems at your facility, eg. core shroud repair, low pressure turbine replacement. In general, operator response to transients and major events was strong. Engineering staff continued to exhibit strong performance despite some instances of untimely corrective actions in support of plant operations. We saw some positive affects of your improvement initiatives in the maintenance area.

However, human performance problems were noted during this period especially when the pace of routine activities substantially increased such as during the refueling outage and the transition out of the outage. During these times, we noted some instances of licensed and non-licensed operator and chemistry technician performance shortcomings such as cognitive errors, missed communications, and weak first line supervisor oversight. Of six specific examples noted, the most significant was the starting of a safety related residual heat removal pump with the suction valve closed. Operations middle level management, including nuclear watch engineer's performance (senior reactor operators), appeared to have more responsibilities associated with production work than in past outages; and, as a result, the scope and effectiveness of their safety oversight activities were adversely impacted. Similar human performance problems were noted for the loss of containment integrity event noted earlier in the assessment period in both the operations and maintenance areas. Problems in work planning persisted.

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Strong performance from various support programs continued to be noted except in the areas of control of contaminated tools and the ALARA (As Low As Is Reasonably Achievable) area in the radiological controls program. Our review of your ALARA program during the refueling outage determined that several weaknesses existed. Examples involve issues associated with activities such as sludge removal from the torus, installation of permanent platforms in routinely scaffolded areas, reconciling exposures incurred during work activities against ALARA estimates and use of permanent shielding in plant areas. Housekeeping and plant material condition in the plant immediately after the outage was poor and is only recently recovering to pre-outage conditions. Your plant-wide coatings program is noteworthy.

The enclosure provides the schedule and basis for NRC inspections of your facility planned for the next year following the end of the subject assessment period. We will inform you of any changes required to the attached inspection schedule. The routine resident inspection effort is not included in this schedule.

In summary, otherwise strong safety performance was diminished by several instances of weak human performance that were apparently missed by in-line management or by your oversight groups. We are interested in your perspective on this matter. Based on my staff's telephone conversation with you and your staff, a management meeting is scheduled for November 28, 1995 starting at 10:00 a.m. (2-3 hours planned) at the Region I Office and at that meeting we request that you provide:

- your root cause analysis or self assessment results on human performance problems noted during this review period;
- your specific experiences, lessons learned, and root cause analysis and/or self assessment results on your maintenance improvement initiatives (previously agreed to between BECo and Region I);
- your perspective, lessons learned, and corrective actions on opportunities for improvement noted in the ALARA program; and,
- any other initiatives and related accomplishments associated with improving performance, overall.

If you have any questions concerning this letter, please contact Richard Conte at 610-337-5183.

Sincerely,

Original signed by:

Richard W. Cooper, II, Director
Division of Reactor Projects

Docket No. 50-293
Enclosure: Planned Inspections

cc w/encl:

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D. Tarantino, Nuclear Information Manager
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The Honorable Therese Murray
The Honorable Linda Teagan
B. Abbanat, Department of Public Utilities
Chairman, Plymouth Board of Selectmen
Chairman, Duxbury Board of Selectmen
Chairman, Nuclear Matters Committee
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Mr. E. Thomas Boulette, PhD

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ENCLOSURE

12 MONTH FUTURE INSPECTION SCHEDULE FOR PILGRIM

<u>Planned Start Date</u>	<u>Inspection Procedure (IP) and Basis</u>
Cancelled	TI 2515/122 Evaluation of Rosemount Pressure Transmitter Performance and Licensee Enhanced Surveillance Program Basis: Deleted by Headquarters Program Guidance
Cancelled	IP 65051 Low-Level Radioactive Waste Storage Facilities Program aspects being incorporated into core IP 86750 on Solid Waste Basis:
10/02/95	IP 64704 Fire Protection Program Basis: Core Inspection Program
10/16/95	IP 84750 Radioactive Waste Treatment and Effluent and Environmental Monitoring Basis: Core Inspection Program
10/23/95 & 10/30/95	IP 37550 Engineering (Second Core Inspection) Basis: Core Inspection Program
11/06/95	IP 32302 Review of Emergency Preparedness Exercise Objectives and Scenarios for Power Reactors Basis: Core Inspection Program
12/11/95	IP 82301 Evaluation of Exercise for Power Reactors Basis: Core Inspection Program
01/08/96	IP 83750 Occupational Radiation Exposure Basis: Core Inspection Program
01/22/96 & 2/5/96	IP 40500 Effectiveness of Licensee Controls in Identifying, Resolving and Preventing Problems Basis: Core Inspection Program (expanded scope to include follow-up on selected human performance problems, problem resolution in general, and the effect, if any, due to organizational change)
02/12/96	IP 81700 Physical Security Program for Power Reactors (Part 2 of 2) Basis: Core Inspection Program

<u>Planned Start Date</u>	<u>Inspection Procedure (IP) and Basis</u>
02/26/96	IP 37550 Engineering (Part 3 of 3) Basis: Core Inspection Program
02/26/96	IP 38701 Region based initiative inspection focus on the "control of purchased services" that uses the lessons learned/insights gained through the review of selected events Basis: Common theme on two separate events: shutdown margin event and a reworked control rod drive mini-flow isolation valve
*Bef. 4/96	IP 62700 Region based initiative on LCO Maintenance with focus on work planning including parts availability to be complete with ALARA review 83750 Basis: Continued problems in work planning and maintenance re-organization/initiatives.
*Bef. 4/96	IP 83750 Region based initiative on Occupational Radiation Exposure - ALARA review to complete with LCO maintenance initiative 62700 Basis: ALARA program weaknesses
06/10/96	IP 71001 Licensed Operator Requalification Program Evaluation Basis: Core Inspection Program
07/08/96	IP 86750 Solid Radioactive Waste Management and Transportation of Radioactive Materials Basis: Core Inspection Program
11/18/96	IP 83750 Occupational Radiation Exposure (Part 1 of 2) Basis: Core Inspection Program
By 12/96	TI 2515/117 Site Access Authorization Basis: Area of Emphasis Inspection related to safety issue followup.

* To be scheduled before April 1996 dependent on nature and extent of LCO maintenance scheduled by BECo during power operations