

AUG 19 1988

Docket No. 50-293

Boston Edison Company
ATTN: Mr. Ralph G. Bird
Senior Vice President - Nuclear
800 Boylston Street
Boston, Massachusetts 02199

Gentlemen:

Subject: Inspection No. 50-293/88-17 and Management Meeting 50-293/88-26

This refers to your letter dated June 25, 1988, in response to our letter dated May 25, 1988 concerning inspection 50-293/88-17; and to your letter dated July 7, 1988 which was in response to additional concerns raised at our Management Meeting 50-293/88-26 conducted on June 27, 1988 and in a subsequent phone conversation between Mr. Gallis of this office and Mr. K. Highfill of your staff on July 1, 1988.

Thank you for informing us of the corrective and preventive actions documented in your letters. These actions will be examined during a future inspection of your licensed program.

Your cooperation with us is appreciated.

Sincerely,

ORIGINAL SIGNED BY
WILLIAM V. JOHNSTON

William V. Johnston, Acting Director
Division of Reactor Safety

OFFICIAL RECORD COPY

RL PILGRIM 88-17 - 0001.0.0
08/04/88

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PDR ADOCK 05000293
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cc:

- K. Highfill, Station Director
- R. Anderson, Plant Manager
- J. Keyes, Licensing Division Manager
- E. Robinson, Nuclear Information Manager
- R. Swanson, Nuclear Engineering Department Manager
- The Honorable Edward J. Markey
- The Honorable Edward P. Kirby
- The Honorable Peter V. Forman
- B. McIntyre, Chairman, Department of Public Utilities
- Chairman, Plymouth Board of Selectmen
- Chairman, Duxbury Board of Selectmen
- Plymouth Civil Defense Director
- P. Agnes, Assistant Secretary of Public Safety, Commonwealth of Massachusetts
- S. Pollard, Massachusetts Secretary of Energy Resources
- R. Shimshak, MASSPIRG
- Public Document Room (PDR)
- Local Public Document Room (LPDR)
- Nuclear Safety Information Center (NSIC)
- NRC Resident Inspector
- Commonwealth of Massachusetts (2)

bcc:

Region I Docket Room (with concurrences)

- R. Blough, DRP
- L. Doerflein, DRP
- D. McDonald, PM, NRR

- R. Borer, DRSS
- S. Collins, DRP

MB
 RI:DRS
 Blumberg/gcb

8/4/88

Deit
 RI:DRP
 Haverkamp

8/4/88

RI:DRS
Sam

8/4/88

WJ
 RI:DRS
 Johnston

8/9/88

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RL PILGRIM 88-17 - 0002.0.G
08/04/88



BOSTON EDISON

Pilgrim Nuclear Power Station
Rocky Hill Road
Plymouth, Massachusetts 02360

June 25, 1988
BECO Ltr. #88-98

Ralph G. Bird
Senior Vice President — Nuclear

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Docket No. 50-293
License No. DPR-35

Subject: NRC Inspection Report 50-293/88-17 (Response)

Dear Sir:

Attached is Boston Edison Company's response to the NRC Region I Maintenance Assessment Team Inspection conducted from April 25 through May 5, 1988, at the Pilgrim Nuclear Power Station (PNPS), Plymouth, Massachusetts and at the Braintree, Massachusetts engineering office.

Boston Edison Company concurs with the NRC Assessment Team conclusions that:

1. No violations of regulatory requirements were identified during the inspection.
2. Several program and performance strengths were identified.
3. Certain concerns, including some that were considered significant, were identified.

These conclusions are consistent with the actions mandated by our Material Condition Improvement Action Plan (MCIAP) and the independent conclusions of our Restart Readiness Self-Assessment (RRSA) conducted between April 18, 1988 and May 2, 1988. Boston Edison Company has accelerated the actions necessary to implement those MCIAP and RRSA items which will resolve the significant NRC Assessment Team concerns.

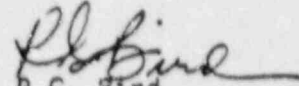
Boston Edison Company will address prior to restart, concerns identified in the areas of (1) maintenance program, (2) staffing, and (3) program performance. The details and status of our corrective actions are discussed in Attachment A. R. Ledgett and R. Blough agreed on 6/23/88 that submittal of this letter by 6/27/88 is acceptable.

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Boston Edison Company
Docket No. 50-293
License No. DPR-35

Page 2

Please do not hesitate to contact me if there are questions or comments regarding the attached response.


R.G. Bird

RLC/b1

Attachment

cc: Mr. William Russell
Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Rd.
King of Prussia, PA 19406

Sr. Resident Inspector - Pilgrim Station

Standard BECo Distribution

ATTACHMENT 'A'

Boston Edison Company
Pilgrim Nuclear Power Station

BECO Ltr: 88-98
Docket No. 50-293
License No. DPR-35

Inspection Report 88-17 Response

Boston Edison has reviewed the concerns discussed in Section 1.2 of the NRC Maintenance Assessment Team Report and concurs with the NRC Assessment Team conclusions. These conclusions are consistent with the independent actions and conclusions of our Material Condition Improvement Action Plan (MCIAP) and our Restart Readiness Self-Assessment (RRSA) conducted during the period of April 18, 1988 to May 2, 1988. Boston Edison has accelerated the implementation of those MCIAP and RRSA actions necessary to resolve the significant NRC Assessment Team concerns. The areas of concern are:

- Maintenance Program
- Maintenance Staffing
- Program Performance

I. Maintenance Program

The following is a summary of the actions taken in the area of the Maintenance Program:

- Boston Edison has taken action to more clearly define work control practices in approved plant and department procedures as well as to formalize the current plant work control practices for Maintenance.
 - To accomplish this, the ongoing comprehensive rewrite of the PNPS Maintenance Section Manual was completed to more clearly describe its purpose, intent, structure, and its relationship to other station directives and procedures. This rewrite incorporates INPO Guidelines 85-038, "Conduct of Maintenance at Nuclear Power Station", to enhance maintenance practices at Pilgrim Station. Additionally, Boston Edison performed a major rewrite of PNPS Procedure 1.5.3, "Maintenance Requests", to incorporate improved administrative controls. A new procedure, PNPS Procedure 1.5.3.1, "Maintenance Work Plan", was developed to be utilized in conjunction with the Maintenance Request (MR) as an administrative tool to provide a Work Plan which further defines (details) the maintenance activity to be performed.
- Boston Edison has taken action to provide improved specifications for unique and routine maintenance previously covered by Procedure 3.M.1-11, "Routine Maintenance", to ensure adequate preparation of work packages for such tasks.

ATTACHMENT 'A'

Inspection Report 88-17 Response (cont'd)

- To accomplish this, Boston Edison prepared, approved, and implemented Procedure 1.5.3.1, "Maintenance Work Plan". This procedure, used in conjunction with the revised Procedure 1.5.3, "Maintenance Requests", provides an effective means to specify unique instructions for routine maintenance tasks formerly covered by Procedure 3.M.1-11. Maintenance Work Plans are now required to contain specifically defined steps for the performance and documentation of maintenance activities. MRs written prior to the implementation of the revised maintenance program, and which referenced Procedure 3.M.1-11, are reviewed and approved by the Plant Maintenance Section Manager prior to implementation to ensure that the intent of the revised maintenance procedures is met.

II. Maintenance Staffing

Boston Edison conducted a review in the last quarter of 1987 of the authorized staffing level. An integral part of this review included an estimate of manpower resources required to meet and maintain the established performance goals of the Maintenance Section.

Based on this review, the permanent full-time Maintenance complement has been increased. Ten of these positions are supervisory positions. Revised job descriptions have been developed for this expanded organization and hiring efforts are aggressively underway.

Attention to the plant's material condition has been increased by the expansion of the permanent complement of maintenance personnel. Attention has been further enhanced by assignment of the Systems Engineering Division (SED) to provide increased support to individual maintenance activities thereby reducing the burden on maintenance personnel. The SED conducts in-depth research for the majority of individual Failure and Malfunction Reports (F&MRs).

The overall knowledge, experience, and performance levels of the Maintenance staff is being improved. This is being accomplished by:

- Recruitment of personnel with greater experience levels to fill vacant and new positions.
- Improved training.
- Development of well-defined job descriptions.
- Improved Maintenance management and supervision.

The experience level of the Maintenance staff has been further enhanced by creating the position of Deputy to the Maintenance Section Manager. This position has been filled by an individual with approximately 25 years of experience in production and planning for nuclear repair, overhaul, and refueling work.

Inspection Report 88-17 Response
(cont'd)

III. Maintenance Performance

Boston Edison, through programmatic changes, is implementing actions which will increase attention to detail as well as improve familiarity with various elements of the work control process. The improvement in the maintenance program described in Section I above, in conjunction with the staffing increase and upgrades, is designed to result in improved maintenance performance.

The following is a summary of the actions taken to improve performance:

- Boston Edison has taken action to ensure that MRs are both complete and correct.
 - The revision of Procedure 1.5.3 incorporated additional guidance and requirements regarding the preparation, review, and approval of MRs to ensure correctness and completeness. The Maintenance Summary Control (MSC) form has been deleted. The function of the MSC has been integrated into the new Maintenance Work Plan (Procedure 1.5.3.1). Training has been conducted, with emphasis on the appropriate method of processing a work plan and the need for the documentation to be complete and accurate.
- Boston Edison has taken action to control expansion or revision of the original work scope during maintenance in the field and to require documentation of the actual work performed.
 - To accomplish this, Procedure 1.5.3.1 specifies the controls necessary to make revisions to the work package. Additionally, any revision to the Work Plan must be reviewed and approved in the same manner as the original document. The work performed will be documented and will become a part of the completed maintenance package.
- Boston Edison has taken action to ensure that complete work packages, including necessary instructions, are available at the work site.
 - The revised maintenance program now provides the necessary guidance and program controls to ensure that work packages, including the necessary instructions, are available at the applicable work site when maintenance activities are being performed.
- Boston Edison has taken action to ensure that Maintenance provides documentation of material used, maintenance and test equipment information, and work performed (including torque values).
 - The Work Plan now requires this information to be documented by the maintenance personnel and becomes a part of the completed work package. The process develops a chronological history of the individual activities.
- Boston Edison has taken action to improve storage and retention of maintenance records.

ATTACHMENT 'A'

Inspection Report 88-17 Response (cont'd)

- Upon completion of a maintenance task, the final work package is returned to the responsible Staffing/Planning Engineer for review and closure. It is then processed by Document Control for retention as a complete package.
- Boston Edison has taken action to ensure proper documentation of post work testing.
 - The Work Plan now requires the maintenance post work testing to be identified, reviewed for adequacy, and results documented as part of the completed work package.

These program improvements, coupled with the increased management focus and direction, will ensure continued program improvement.

IV. Overview of the Revised Maintenance Program

The comprehensive rewrite of the Maintenance Section Manual for PNPS is complete. The changes and additions more clearly describe its purpose, intent, structure, and its relationship to other station directives and procedures. This rewrite incorporates INPO Guidelines 85-038, Conduct of Maintenance at Nuclear Power Stations, to enhance maintenance practices at Pilgrim Station.

Boston Edison also performed a major rewrite (revision) of PNPS Procedure 1.5.3 "Maintenance Request" (MR) to incorporate stronger administrative controls to identify problems, initiate, plan, track and accomplish station maintenance with precise supervisory control on both safety-related and nonsafety-related components, equipment, or structures. A new procedure, PNPS Procedure 1.5.3.1 "Maintenance Work Plan" (MWP), was developed to be utilized in conjunction with the Maintenance Request as an administrative tool to provide a Work Plan which further defines (details) the work to be performed including special tools, equipment, procedures, instructions, technical documentation, expected exposure levels (if applicable) and to provide feedback when work is completed. Revisions to MWPs will not change the intent of the work scope originally approved. Revisions to the Work Plan will be reviewed and approved in the same manner as the original document. The Work Plan and the parent MR are the controlling documents for installation of a modification or performance of a maintenance work activity. The Work Plan specifies the requirements for examination, and testing, and includes the applicable instructions, procedures and drawings. It also specifies hold/witness points and provides for controlling the work in the event of a nonconformance.

The highlights of these major revisions to PNPS Maintenance procedures are: (1) the work documents are incorporated into a single work package for each work activity, (2) the process of the Maintenance Work Package provides increased control in that the engineer who develops the package maintains control during the process, (3) Management level review and approval of revisions, including Quality Control and Operations, are part of the process, and (4) the final package, along with copies of the required documentation is returned to the engineer for review, closure, and processing to Document Control. These procedure revisions have been completed, reviewed, approved and implemented.

ATTACHMENT 'A'

Inspection Report 88-17 Response
(cont'd)

Boston Edison has conducted a series of formal training sessions for the Maintenance Managers, Supervisors, Maintenance Craft and selected personnel from other sections that are directly or indirectly involved in the processing, review, or examination of the new MR/MWP process. This training was completed on June 17, 1988, with program implementation on June 20, 1988.

To reduce the impact on production, and provide a smoother transition, management oversight of the new MR process is being increased during the implementation phase. In addition, the Quality Assurance Surveillance Division will be conducting surveillance on the revised Maintenance Program to monitor implementation and performance.

This response focuses primarily on the corrective actions taken to resolve the concerns described in Section 1.2 of the Team Report. Other corrective actions and program improvements have also been identified and are being addressed by Boston Edison Management. Although some items are not designated as RESTART actions, these items are incorporated into long term programs such as the "Material Condition Improvement Action Plan" (MCIAP). Boston Edison is continuing these actions/improvements with the goal of achieving and sustaining the highest standards of maintenance performance.

**BOLTON EDISON**

Pilgrim Nuclear Power Station
Rocky Hill Road
Frymouth, Massachusetts 02360

Ralph G. Bir
Senior Vice Pres

July 7, 1988
BECO Ltr. #88-103

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

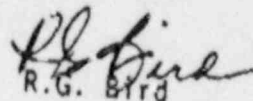
Docket No. 50-293
License No. DPR-35

Subject: Supplemental Response to NRC Inspection
Report No. 50-293/88-17

Dear Sir:

The attached information provides additional detail with respect to Maintenance staffing and performance and supplements our initial response to NRC Inspection 88-17 dated 6/25/88. The information is submitted in accordance with an agreement reached between Mr. Gallo and Mr. Highfill during a telephone conversation on July 1, 1988.

Please do not hesitate to contact me if there are questions or comments regarding the attached response.


R.G. Bird

PJH/dmc

Attachment

cc: Mr. William Russell
Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Rd.
King of Prussia, PA 19406

Sr. Resident Inspector - Pilgrim Station

Standard BECo Distribution

~~8807150103388~~

ATTACHMENT A

Boston Edison Company
Pilgrim Nuclear Power Station

BECO Ltr: 88-103
Docket No. 50-293
License No. DPR-35

Supplemental Response to NRC Inspection Report No. 50-293/88-17

Staffing

The Maintenance organization, including supervisory and planning positions, is fully staffed with a combination of Boston Edison and contractor personnel. An aggressive process is in place to hire permanent personnel for those positions currently filled by contractors. Current projections show permanent positions will be filled with Boston Edison personnel by August 31, 1988. Our plan is to maintain the Maintenance Organization fully staffed (\pm 5 positions) utilizing contractors when necessary.

The existing Maintenance staff (both Boston Edison and contractors) is trained on the recent changes that were made to enhance the work control process. New personnel will be trained as appropriate on the process which is discussed in our initial response to Inspection 88-17.

To increase the attractiveness of jobs in Maintenance, specific actions have been taken:

- Physical working conditions have been improved as a result of the plant decontamination program. Fewer jobs require the use of cumbersome protective clothing to perform.
- Administrative workload on Maintenance supervisors has been reduced by addition of the System Engineering Division and implementation of the Maintenance Planning Division. Maintenance work controls have been upgraded providing more specific guidance to the individuals performing maintenance activities.
- Maintenance staff overtime has been reduced.
- The supervisor to craft ratio has been improved.
- Long term action to upgrade supervisory training has been initiated.

Specific performance goals in the Maintenance area have been established for restart and operation. The goals are based on industry guidance and are published/posted routinely to keep personnel informed of progress towards the goals.

Performance

In response to the results of Inspection 88-17, several actions have been taken to ensure adequacy of previously performed maintenance activities.

ATTACHMENT A
(Cont'd)

Supplemental Response to NRC Inspection Report No. 50-293/88-17

Boston Edison Company has reviewed the concerns identified by the Inspection Team regarding the sample of Maintenance Requests (MR) reviewed by the team during the Maintenance Inspection. These concerns are currently being assessed by BECo to establish the adequacy of previously performed maintenance activities by reviewing and compiling available documentation of the work that was performed by these MRs. Where documentation was not available, walkdowns were performed to ensure adequacy. To date, no rework has been identified. The documentation for one post work test could not be located. To address this item, the post work test was reperformed with satisfactory results. The assessment of these concerns is expected to be completed in July 1988. The adequacy of previous work is further assured by the Quality Assurance and Quality Control Divisions oversight of work on safety related equipment.

In summary, appropriate steps have been taken to establish and maintain a qualified maintenance staff at Pilgrim Station. Preliminary results of our assessment indicate that maintenance activities performed prior to recent program improvements are adequate. Our conclusion is based on the assessment of historical maintenance records and walkdowns performed to date which resulted in no rework, coupled with the Quality Assurance Department oversight of previous activities.