

BOSTON EDISON

Pilgrim Nuclear Power Station
Rocky Hill Road
Plymouth, Massachusetts 02360

Ralph G. Bird
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February 26, 1990
BECO Ltr. 90- 029

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 50-293/89-12

Dear Sir:

Attached is Boston Edison Company's response to the Notice of Violation contained in the subject inspection report.

Please do not hesitate to contact me if there are any questions regarding this response.

R. G. Bird
for R. G. Bird

BPL/bal
Attachment

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

Sr. NRC Resident Inspector - Pilgrim Station

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ATTACHMENT

Boston Edison Company
Pilgrim Nuclear Power Station

Docket No. 50-293
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Notice of Violation

As a result of the inspection conducted at Pilgrim Nuclear Power Station from October 2 to November 19, 1989 and in accordance with the NRC Enforcement Policy (10 CFR 2, Appendix C), the following violation was identified.

Technical Specification 6.8.A requires that written procedures and administrative policies be established and implemented that meet or exceed the requirements of Section 5.1 of ANSI N18.7-1972. ANSI N18.7-1972, Section 5.1, "Rules of Practice", states that rules and instructions pertaining to personnel conduct and control and method of conducting operations shall be established. Section 5.1.2 states that procedures shall be followed.

Procedure 1.4.5, "PNPS Tagging Procedure", Revision 28, Step 6.5(4)(d) states that "the Nuclear Watch Engineer (NWE) on duty at the time the tagout is to be conducted shall give final approval prior to any tag placement...When all of the above criteria are met, the NWE shall sign on the tagout sheet". Step 6.5(6)(a) states that "the Nuclear Operations Supervisor/NWE shall sign to authorize tagout removal after all job supervisor's have signed releasing the tagout". Step 6.9(4) states that "when leads are lifted for isolation and included on the Tag Sheet, they shall also be logged in the lifted lead and jumper log per PNPS 1.5.9.1".

Contrary to the above, during the period October 15 to November 10, 1989 deviations from the requirements of Procedure 1.4.5 were identified in that:

1. In a sampling of approximately 50 completed tagouts, there were errors or omissions on over 80%. Over 30% had errors such as tags hung or cleared without Nuclear Watch Engineer permission signature and tags hung or cleared by individuals other than those specified on the tagout.
2. In a sampling of about 10 tagouts involving work which required the lifting of leads or the installation of jumpers, over 50% of the jobs were not entered in the lifted lead and jumper log. Four of the instances noted involved the replacement of safety related components (e.g., Reactor Level Transmitter; Diesel Generator Emergency Start Relay).

Response

Cause:

Procedure 1.4.5 "PNPS Tagging Procedure" underwent a major revision to institute a boundary tagging philosophy that would enable Operations personnel to completely assess a system/component's status by review of the tagout log. The revised procedure (rev. 29) was issued on October 11, 1989.

On October 13, 1989 the plant was shutdown for a scheduled maintenance/surveillance outage which lasted to November 6, 1989. During the early stages of the outage, two spare Nuclear Watch Engineers were assigned to prepare tagout packages. Just as the emergent work from outage began to increase, the ability to provide spare Watch Engineers for tagout preparation ended when one Watch Engineer was hospitalized and another began a long planned vacation. At that point, tagout preparation, implementation and closeout became the sole responsibility of the Watch Crew. With the additional workload, combined with the already busy outage atmosphere, the Watch Crews' attention to detail in following the procedural steps of the new tagout process became deficient.

Personnel involved in the tagout process were trained, and comments solicited during the training process were incorporated in the tagging procedure prior to implementation. However, interviews conducted by Operations Section Management subsequent to the NRC Inspection, determined that personnel involved in the protective tagging process were not fully aware of the new tagging procedure administrative requirements. In retrospect, it appears that more practice in completing the new paperwork should have been conducted.

Independent oversight/review of the new tagging procedure implementation was not conducted. Due to the major nature of the revision to the tagging process, increased management oversight should have been provided to assure early detection/correction of errors and/or effective implementation.

Corrective Steps Taken to Preclude Recurrence:

- On November 9, 1989 an audit of completed and active Tagouts was performed which confirmed the NRC Inspector's findings.
- On November 9, 1989, Operations personnel were directed via Night Orders to be more vigilant with tagout documentation.
- On November 14, 1989, the Sr. V.P. Nuclear, the V.P. Nuclear Operations, the Plant Manager, the Operations Section Manager, and the Chief Operating Engineer met with the Nuclear Watch Engineers and Nuclear Operations Supervisors to reinforce the need to pay strict attention to detail in the implementation of the tagging procedure.
- Procedure 8.A.25 "Periodic Review of Tags" was issued November 16, 1989. The procedure is scheduled by the Master Surveillance Tracking Program to be performed monthly, which includes a field review of 10% of the tagouts, and once-per-refueling outage, which includes a field review of 100% of the tagouts.
- Between November 10, 1989 and November 17, 1989, the Chief Operating Engineer discussed the NRC Inspector's findings on the tagging process with the watch crews, reviewed the requirements of the tagging procedure and reemphasized the need for strict procedural compliance including administrative requirements.
- Between November 10, 1989 and November 15, 1989 the Senior Administrative Assistant instructed the Administrative Assistants to ensure proper signatures exist on all tagout sections as they are executed.

- Between November 10, 1989 and November 18, 1989 the Operations Section Manager met separately with each Administrative Assistant to reinforce that strict attention to detail is essential to properly administer the tagging process.
- On November 28, 1989, the Plant Department Manager issued a memo to Plant Department and Section Managers clarifying the boundary tagging philosophy.
- In December 1989, the Deputy Plant Manager, Operations Section Manager and the Chief Operating Engineer met with each shift management team consisting of the Nuclear Watch Engineer, Nuclear Operations Supervisor, Shift Technical Advisor and Administrative Assistant to stress that attention to administrative detail is fundamental to attaining high performance levels.
- As of November 30, 1989 the tagout discrepancies had been resolved.
- Procedure 1.4.5 "PNPS Tagging Procedure" was revised (rev. 30) to simplify tag changes for isolations affecting operations only and to stop work in the field prior to allowing changes to a boundary. The procedure was approved on November 1, 1989 and became effective November 15, 1989 after training.
- Procedure 1.5.3 "Maintenance Request" was revised on December 21, 1989 to require preparation of a proposed tagout for planned work prior to submittal of the work package to the Control Room. This provides for a review and acceptance of a tagout by Operations 24 hours prior to implementation of the isolation.
- Operations Section personnel have been retrained on the tagging process. The training, conducted in January and February of 1990 included practice on plant tagouts.
- The Senior Administrative Assistant reviews tagouts on a once per workday basis. This practice will continue until directed otherwise by the Chief Operating Engineer.
- The Operations Section Manager and the Chief Operating Engineer have been providing direct oversight of the tagout process by periodically reviewing tagouts.
- The Management Surveillance Watchbill program, directed by the V.P. Nuclear Operations assigns management staff to review specific aspects of plant operations. Since December 1989, the tagout and lifted lead and jumper processes have been scheduled for approximately sixteen hours of management review per month as part of this program.

Ongoing Corrective Action:

- A Quality Assurance Surveillance of the tagout process is in progress and is expected to be completed by March 1, 1990.

Results Achieved:

- The routine and special reviews of the tagout process described above have shown improved attention to detail and compliance with Procedure 1.4.5, "PNPS Tagging Procedure". Management will continue to assess performance in this area and make process refinements or take corrective actions as necessary to assure effective implementation of the tagout process.

Date When Full Compliance Was Achieved

- Full Compliance with Procedure 1.4.5 "PNPS Tagging Procedure" was achieved on November 30, 1989 when the tagout discrepancies were resolved.

Safety Consequences:

- The discrepancies identified were administrative in nature. Appropriate system/component boundary isolations were maintained at all times. The discrepancies did not adversely impact the public health and safety.