10 CFR 2.201

Boston Edison

Pilgrim Nuclear Power Station
Rocky Hill Road
Plymouth, Massachusetts 02360

August 18 , 1995
BECo Ltr. #95-083

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U.S. Nuclear Regulatory Commission
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Docket No. 50-293

Subject: **RESPONSE TO A NOTICE OF VIOLATION**

Reference: **(1) NRC INSPECTION REPORT NO. 95-14**

NRC Inspection Report No. 95-14 included a Notice of Violation 95-14-01. Enclosed is our response to this Notice of Violation.

The NRC Resident Inspector's office was informed and agreed this report would be submitted by August 18, 1995 due to the time period between the issuance and receipt of the Notice of Violation.

In this letter, the following commitments are made:

- Re-roofing the Emergency Diesel Generator Building.
- Replacing SBM control switches with susceptible cam followers in safety related applications.
- Conducting refresher training on problem reporting, problem evaluating and operability evaluations.

Please feel free to contact me if there are any questions regarding this response.

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Enclosures
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IE01

ENCLOSURE

NOTICE OF VIOLATION

During an NRC inspection conducted from June 19 through June 23, 1995, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", the violation is listed below:

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action", requires that measures shall be established to assure that conditions adverse to quality, such as malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, as of June 23, 1995, significant conditions adverse to quality were not promptly corrected as stated in the following examples:

1. In November 1994, the licensee identified significant roof leakage into the Emergency Diesel Generator Building near safety-related electrical equipment. Corrective action was not taken to repair the roof.

2. A safety-related Type SBM control switch for high pressure coolant injection (HPCI) system valve 2301-8 failed to operate in November 1992. Corrective actions were not taken to preclude repetition such that in May 1995, the control switch for the HPCI torus suction valve 2301-35 failed to operate due to cracked Lexan cam followers. Cracked Lexan cam followers in the switches caused both failures.

This is a Severity Level IV violation (Supplement I).

REASON FOR THE VIOLATION

The reason for the two conditions described in the violation is that personnel were not alert to the potential safety significance of the conditions. Boston Edison has verified the adequacy of its corrective action process implementing procedure, NOP92A1, "Problem Report Program". The corrective action process, however, was not effective in the examples cited in the violation because personnel were not alert to the safety significance of the conditions resulting from the leaking Diesel Generator Building roof and SBM switch cam follower cracking.

The Problem Report process was instituted in early 1992. Although, all personnel received training on problem reports at that time, there has been no specific continuing/refresher training.

EDG Roof Leakage

The Problem Report process was not used to initially document rain leakage through the roof of the Emergency Diesel Generator (EDG) building. In June of 1994, engineering personnel identified some of the plant building roofs, including the EDG building roof, would need re-roofing over the years 1995 to 2000. Since there was no plant operability issue identified at that time, the Long Term Plan process was used to plan for roof repairs. Although there was no reported EDG building roof leakage at that time, the EDG building roof work was ranked as the highest priority, with re-roofing to commence in 1995. During a Fall 1994 management walkdown, roof leakage was detected in the EDG building. A work request tag was written describing the condition and requesting repair. Roof leakage continued and a Problem Report (PR95.3127) was written on March 18, 1995. NRC Inspection Report 95-14 states the Problem Report tracking system was not used to identify actions such as inspecting electrical boxes in the path of potential leakage and placing covers on said electrical boxes as recommended by the Problem Report initiator. Although not formally documented, the Problem Assessment Committee (PAC), which reviews all Problem Reports, determined there was no immediate need to perform the recommended repairs because informal area walkdowns/inspections by Operations, Maintenance and Engineering personnel determined that EDG operability was not impacted by the roof leakage. The area walkdowns/inspections were performed because of potential operability concerns raised during PAC review of the PR 95.9127. PAC assigned the highest significance level to the PR to identify the potential operability concern. Although operability was not a concern from roof leakage, a PR should have been written in the Fall of 1994 and a repair should have been performed as part of initial corrective action.

SBM Control Switches

Problem Report (PR) 92.9231 was written to document the failure of the control switch for HPCI motor operated valve MO-2301-8 to operate. The evaluation of the problem referenced General Electric Service Information Letter (SIL) 155 but did not reference Supplement 2 of SIL 155. SIL 155, "Possible Failure of Type SBM Control Switches" was originally issued in 1976 to alert licensees of problems with Type SBM switch Lexan cam followers. The same concern with SBM control switches was discussed in NRC Information Notice 80-13, "General Electric type SBM Control Switches Defective Cam Followers" issued in April 1980. In 1977, four potentially defective switches were replaced at Pilgrim in response to SIL 155. Supplement 2 of SIL 155, issued in 1979, expanded the scope of the SBM switches susceptible to Lexan cam follower cracking to all SBM switches manufactured prior to 1976 and recommended periodic inspection and replacement of the pre-1976 switches. The evaluation in 1980 of Supplement 2 of SIL 155 did not address susceptible switches manufactured prior to 1976. An incorrect conclusion was made in the PR 92.9231 evaluation in that the MO-2301-8 control switch did not have a part number addressed in the SIL. The evaluation concluded the MO-2301-8 control switch failure was an isolated event, that the original response to the SIL was adequate, and that no further action was required. This lack of further action contributed to the failure of the control switch for the HPCI/Torus suction valve MO-2301-35 in May 1995 as identified in PR 95.9268. Following the May 1995 failure, engineering personnel recognized that SIL 155 Supplement 2 required further review to evaluate industry and site-specific information and determine if potentially defective type SBM switches were still installed in safety related systems at Pilgrim. However, an operability determination was not initiated at that time.

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

EDG Roof Leakage

The Problem Assessment Committee, the Operations Section Manager, and the on-shift Nuclear Watch Engineer determined the EDGs and related components were operable when PR 95.9127 was reviewed in March of 1995. The cognizant Systems Engineer inspected the EDG building with Maintenance personnel to review and provide details for locating temporary repairs and catch containments. Maintenance personnel made temporary roof repairs to the EDG roof in June 1995. In July 1995, station personnel installed deflectors and catch containments within the EDG building to eliminate the possibility of water impacting safety related equipment. Immediately after the NRC inspection, the cognizant Systems Engineer completed a formal engineering evaluation which concluded the EDGs and associated equipment were operable relative to roof leakage.

SBM Control Switches

As stated in the Notice of Violation, an operability assessment was initiated during the inspection. This assessment was finalized on June 23, 1995 and it formed the basis of an operability evaluation endorsed by the Operations Review Committee (ORC) on July 6, 1995. This operability evaluation was revised and endorsed by ORC on August 10, 1995. An inspection program was initiated for SBM type switches utilized in safety related applications. The inspections identified the condition of accessible SBM switches having susceptible Lexan cam follower material. The 'as found' condition of these switches varied substantially. None of the as-found conditions prevented operability. The condition of the affected switches which were inaccessible is bounded within the operability evaluations. As of August 1, 1995, six of a possible 120 safety related switches have been replaced. Replacement of approximately 60 additional switches has been scheduled within our established 12 week rolling maintenance

schedule. The replacement of these control switches has been prioritized and sequenced based upon the safety significance of each control switch. The prioritization process used both deterministic and probabilistic methodologies.

Additionally, an Operations Standing Order was issued providing operators with guidance on the indications of a failed SBM control switch.

CORRECTIVE ACTION TAKEN TO PRECLUDE RECURRENCE

Compliance with Problem Report Process

During the week following inspection 95-14, PAC reviewed the specific conditions described in this violation and the PAC related actions taken. That review included the organization's expectations of PAC.

The Plant Manager has counseled the members of the Problem Assessment Committee regarding the requirements of NRC Generic Letter 91-18.

Appropriate personnel involved in the problem report process will undergo refresher training on problem reporting and operability evaluations, the expectations of NRC Generic Letter 91-18 and the Problem Report Process by November 30, 1995.

Nuclear Organization Managers, including PAC members and their alternates, will receive refresher training on the Problem Report Process by December 31, 1995. Specific attention will be given to the importance of assigning an action for a formal evaluation when an operability concern is identified.

Additionally, PAC will commence a practice of periodically reviewing older open Problem Reports to determine if there are any concerns about the timeliness of corrective actions.

The Operating Experience Report Program will be included in the next Plant Department self-assessment, expected by December 31 ,1995. The focus of the self-assessment will be to identify whether the closeout of SIL 155, Supplement 2, was an isolated or generic issue. Additional corrective action may be identified as a result of the assessment.

EDG Roof Leakage

The EDG building roof will be replaced by December 31, 1995.

SBM Control Switches

Safety related SBM type control switches with susceptible cam followers will be replaced. The switch replacements have been scheduled within the maintenance time frames for the affected systems. The switches are being replaced via Plant Design Change 95-02.

A significant number of these switches will be replaced by November 1995. Since a small number of the switches require a plant outage and no outage is scheduled prior to the next refueling outage, switch replacement is not expected to be fully complete until May of 1997. Should a forced outage occur, the switches requiring a plant outage for replacement will be evaluated for changeout on an expedited basis.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

EDG Roof Leakage

Full compliance was achieved by the end of July 1995 when the temporary repair was completed, deflectors and catch containments had been installed, and a formal engineering evaluation of the condition was completed.

SBM Control Switches

Full compliance will be achieved by May 1997.

Problem Report Process

Full compliance will be achieved by December 31, 1995.