



10 CFR 2.201

BOSTON EDISON

Pilgrim Nuclear Power Station
Rocky Hill Road
Plymouth, Massachusetts 02360

February 26, 1993
BECO Ltr. 93- 026

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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: REPLY TO A NOTICE OF VIOLATION (REFERENCE NRC REGION I INSPECTION
REPORT NO. 50-293/92-28)

Dear Sir:

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

Please do not hesitate to contact me if there are any questions regarding the enclosed reply.

ET Boulette

E. T. Boulette

DWE/bal

Enclosure: Reply to the Notice of Violation

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ENCLOSURE

REPLY TO THE NOTICE OF VIOLATION

Boston Edison Company
Pilgrim Nuclear Power Station

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

As a result of the inspection conducted at Pilgrim Station from November 24, 1992 to December 31, 1992, and in accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C), the following violation was identified:

NOTICE OF VIOLATION

Technical Specification 6.8.A requires the proper implementation of procedures recommended in Appendix A of USNRC Regulatory Guide 1.33. Appendix A, Section 4 recommends establishment of procedures for startup, operation, and shutdown of safety-related systems including the Reactor Protective System (RPS). Procedure 3.M.2-7.6, "NUMAC Log Radiation Monitor Setpoint Change Procedure", provides instruction for the adjustment of protective instrument setpoints associated with the RPS system.

Contrary to the above, on two occasions, the licensee failed to properly implement procedure 3.M.2-7.6 in that technicians established incorrect RPS protective setpoints and management reviews failed to identify the associated discrepancies. Specifically, on December 20, 1992, following an automatic reactor trip (which resulted from incorrectly established RPS setpoints) technicians failed to reset the MSL high radiation alarm setpoints as required by procedure 3.M.2-7.6. Further, the required management review of the completed procedure failed to identify the discrepancies. Additionally, on December 23, 1992, following reactor startup, procedurally-specified review of the setpoint changes again failed to identify the incorrect as-found MSL high radiation alarm setpoints. During the period of time between December 20-23, 1992, while the MSL trip setpoints had been correctly established, the above licensee failures resulted in the MSL high radiation alarms being unavailable to perform their intended function.

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

REASON FOR THE VIOLATION

The reason for the I&C technicians failing to reset the Main Steam Radiation Recorder Alarm after the plant trip on December 20, 1992, was miscommunication between the Instrumentation and Control (I&C) Supervisor and Technicians. The technicians were instructed to reset the trip settings of the Main Steam Radiation Monitors. No instruction was given to reset the alarm settings of the Main Steam Radiation Recorder. The reason the discrepancies were not identified was I&C Supervisor error. The same I&C Supervisor reviewed the results of procedure 3.M.2-7.6 (Rev. 2) conducted on December 20, 1992, and December 23, 1992 (3.M.3-7.6 Rev. 3). The Supervisor was aware of the cause of the plant trip on December 20, 1992, and knew that corrective actions were initiated and applicable corrective action would be taken prior to the subsequent restart. The trip settings of the Main Steam Radiation Monitors were correctly reset to reflect radiation background levels anticipated for operation without hydrogen injection. The alarm settings for the Main Steam Radiation Recorder should have been reset but were not. Instead, the procedure step was not performed and "N/P" was entered. The entry of "N/P" is procedurally allowed if the alarm setting is not being changed.

The provision for entering "N/P" is included in the procedure because several different instruments can be adjusted using the same procedure. The instruments consist of the Main Steam Radiation Monitors and Recorder, and Steam Jet Air Ejector Radiation Monitors. Procedure 3.M.2-76, Attachment 1, is used for documenting adjustments to these devices and provides blank spaces for identifying the device being adjusted. Therefore, the entry of "N/P" is procedurally allowed when the adjustment of a device is not applicable (e.g., adjusting the Main Steam Radiation Monitors and Recorder but not the Steam Jet Air Ejector Radiation Monitors). Attachment 1 Step [2] includes spaces for entering the required settings of these different devices and also allows the entry of "N/P" when the setting of the applicable device is not being changed. The trip and alarm settings were correctly identified in Step [2] when the setpoints of the Main Steam Radiation Monitors and Recorder were to be reset after the plant trip on December 20, 1992. The trip settings of the Main Steam Radiation Monitors were reset on December 20, 1992, for background radiation levels expected during operation without hydrogen injection. The alarm settings of the Main Steam Radiation Recorder was not adjusted on December 20, 1992, and "N/P" was entered by the I&C Technicians because the technicians were not instructed to reset the alarm settings. The I&C supervisor did not question the entry of "N/P" in Step [27] that would have reset the alarm settings of the Main Steam Radiation Recorder.

Procedure 3.M.2-7.6 (Rev. 2) was revised as a result of the plant trip on December 20, 1992. The revision was issued on December 20, 1992, and included clarifications in several sections of the procedure. The acceptance criteria section was changed to verify the required settings listed in Step [2] agree with the as-left settings in Step [21]. Several steps in the implementation portion of the procedure were also strengthened. The entry spaces for the required settings, identified in Step [2], were changed to identify the required settings in scientific notation format. Step [15] was changed to refer to Step [2] when programming (i.e., entering) the settings. Step [21] was changed to record the as-left downscale trip, hi trip, and hihi trip settings in scientific notation format. Step [22] was changed to specify a comparison of as-left settings in Step [21] to the required settings identified in Step [2]. Step [27] was similarly changed to compare and verify the as-left recorder alarm setting to the setting identified in Step [2]. A new additional Step [30] was added for an independent verification by a utility licensed operator that the as-left settings agree with the settings identified in Step [2].

The trip settings of the Main Steam Radiation Monitors were reset (i.e., increased) in accordance with procedure 3.M.2-7.6 (Rev. 3) on December 23, 1992. The subsequent injection of hydrogen occurred without incident. The Main Steam Radiation Recorder alarm settings were checked during the performance of the procedure on December 23, 1992, and no adjustment was necessary because the as-found settings were correct for operation with hydrogen injection. Therefore, the alarm settings for hydrogen injection established on December 19, 1992, and not reset on December 20, 1992, were the as-found and as-left alarm settings on December 23, 1992. The I&C Supervisor reviewed the procedure and verified the as-left settings were correct prior to signing the completed procedure for I&C management on December 23, 1992. The supervisor did not identify the as-found and as-left settings as a discrepancy because the as-left alarm settings were correct for operation with hydrogen injection. The Main Steam Radiation alarm function is not safety-related.

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

The I&C Supervisor who reviewed the completed procedure performed on December 20, 1992 (procedure 3.M.2-7.6 Rev. 2), and December 23, 1992 (procedure 3.M.2-7.6 Rev. 3), and did not identify the discrepancies received progressive discipline.

Problem Report 93.9006 was written by the I&C Division Manager to document the Main Steam Radiation Recorder alarm setting discrepancies during December 20 - 23, 1992.

The circumstances of the incorrect settings of the Main Steam Radiation Monitors and radiation recorder were discussed during a I&C workshop meeting on January 8, 1993.

Review of procedure 3.M.2-7.6 completed in the previous 18 months revealed no other discrepancies.

The I&C Supervisors received training for I&C Supervisor review of completed surveillance procedures. The training, conducted on February 1, 1993, focused on I&C Supervisor responsibilities and management expectations regarding completed surveillance procedures. Essentially, the I&C Supervisor is responsible for ensuring a completed surveillance procedure has been properly conducted prior to review/signature by the senior utility shift licensed operator (NWE). Included in this I&C Supervisor responsibility are checks that include information/data entry where required, comparison of data entered to identified tolerances, appropriateness when a step is not performed, legibility, and explanation of notes or discrepancies in the proper location.

The effectiveness of the I&C Supervisor training is being assessed. Initially, I&C Supervisors will complete a yes-no type checklist containing key elements directly related to the training conducted. The checklist also includes the date, procedure number and attachment (when applicable), I&C Supervisor name, and a comments section. Each I&C Supervisor is completing this checklist for the first 12 surveillance procedures completed after February 1, 1993. The completed checklists are being forwarded to the I&C Division Manager for review. This initial action is providing I&C Supervisor/I&C Division Manager feedback to determine the effectiveness of the training conducted. As of the date when this response was prepared, the feedback indicated the training was effective. These actions will be complete when the I&C Supervisors have each completed a checklist for the first 12 surveillance procedures completed by the I&C Technicians for whom the Supervisors are responsible. Due to the variation in the frequency of the surveillance procedures that are scheduled in accordance with the Master Surveillance Tracking Program, the date when these actions will be completed will vary by the individual I&C Supervisor. The completion date for all current I&C Supervisors is expected to be September 1, 1993.

The longer term effectiveness of the training conducted will also be assessed via a periodic sample of completed surveillance procedures. The sampling has been established by the creation of a new Preventive Maintenance Program node (P 0487035). The node functions to notify the I&C Division Manager that the sampling is to be conducted. The initial sampling frequency is once per six months. Based on the results of the sampling conducted, the frequency may be increased, decreased, or eliminated. The initial sample is scheduled to be reviewed by the end of July 1993. These actions will be complete when two consecutive samples of completed surveillance procedures have been reviewed with acceptable results by the I&C Division Manager. Based on the initial sampling frequency of once per six months, the earliest completion date would be the end of January 1994.

CORRECTIVE ACTION TO PRECLUDE RECURRENCE

Procedure 3.M.2-7.6 (currently Rev. 3) is being evaluated for further improvement. When this response was prepared, the focus for improvement was the possible removal of the Steam Jet Air Ejector Radiation Monitors from the scope of Attachment 1 to a new attachment or other procedure. This would eliminate the need for the procedurally-allowed ability to enter "N/P". Other improvements may be identified as a result of the evaluation.

The circumstances of the incorrect settings of the Main Steam Radiation Monitors that resulted in the plant trip on December 20, 1992, and the incorrect alarm settings of the Main Steam Radiation Recorder after the plant trip and prior to the resumption of hydrogen injection on December 23, 1992, were discussed during a Maintenance manager meeting with Maintenance Supervisors on February 22, 1993. The supervisors were from the I&C, Electrical Maintenance, and Mechanical Maintenance Divisions.

The Maintenance Training Program includes general indoctrination and Maintenance Supervisor training. The Maintenance Supervisor Training Program includes orientation by the Maintenance Manager. The training includes the manager's expectations (i.e., philosophy and perspectives) in several topical areas that include the conduct of maintenance and work control, the conduct of operations, and administrative requirements. Maintenance Supervisor training will be strengthened by including key elements of the training provided to the I&C Supervisors on February 1, 1993.

The plant trip on December 20, 1992, was reported in LER 92-018-00. The event and response to this violation will be included in the continuing Plant Status Update training for I&C Supervisors and Technicians. The training will be completed by December 31, 1993.

The evaluation of procedure 3.M.2-7.6 (currently Rev. 3) is expected to be completed by March 1, 1993. The procedure improvements will be initiated by March 31, 1993, with an estimated completion date of May 30, 1993.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance for the Main Steam Radiation Recorder alarm settings was achieved when the alarm settings were checked and verified to be correct on December 23, 1992.

Full compliance for the Main Steam Radiation Recorder alarm setting discrepancies was achieved when Problem Report 93.9006 was written on January 7, 1993.