

September 16, 1998

EA 98-277

Mr. Leon J. Olivier
Senior Vice President - Nuclear
BEC Energy
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, Massachusetts 02360-5599

SUBJECT: PILGRIM INSPECTION REPORT NO. 50-293/98-04 (REPLY)

Dear Mr. Olivier:

This letter refers to your August 28, 1998 correspondence, in response to our notice of violation dated August 6, 1998 and our integrated inspection report dated June 29, 1998. This inspection focused on the maintenance rule baseline program (April 27, 1998 to May 1, 1998 onsite, and from May 4-15, 1998 in-office) at the Pilgrim Nuclear Power Station, Plymouth, Massachusetts. We have reviewed this matter in accordance with NRC Inspection Manual Procedure 92902, "Maintenance." We concur with your assessment of the root causes and corrective actions as summarized below and we note a common cause for all three violations being human error that resulted from your initial incomplete understanding of the requirements and initial inability to remain current in evolving NRC expectations in this area.

The first violation involved failure to establish an unavailability performance measure for the anticipated transient without scram (ATWS) function of the control rod drive system. The corrective actions involved re-evaluation by your Expert Panel, and this function was determined to be risk significant. Accordingly, unavailability criterion was established and the bases document was revised and approved by your Expert Panel.

The second violation involved failure to include in the scope of the Maintenance Rule program, the heating, ventilation and air conditioning (HVAC) system for the reactor building 480V switchgear environmental enclosures and for the firewater system function of providing a backup (and supplemental) supply to the screenwash system. The corrective actions involved re-evaluation by your Expert Panel, development of performance criteria, revision of the respective bases document and approval by the Expert Panel. //

The third violation involved failure to complete the periodic evaluation required to be performed for refueling cycle 11, which ended April 1997. The corrective actions included completing the (a)(3) periodic assessment for refueling cycle number 11 and a planned revision to your program requirements that will require the (a)(3) periodic assessments to be completed at the end of each refueling outage, not to exceed two years.

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Mr. Leon J. Olivier

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The effectiveness of your corrective actions will be reviewed in a future inspection after the completion of your comprehensive self-assessment in which you indicated is expected to be completed by April 15, 1999. We appreciate your cooperation.

Sincerely,

ORIGINAL SIGNED BY:

Richard J. Conte, Chief
Operator Licensing and
Human Performance Branch
Division of Reactor Safety

Docket No.: 50-293

License No.: DPR-35

cc w/encl:

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C. Goddard, Plant Department Manager
J. Alexander, Regulatory Relations
D. Tarantino, Nuclear Information Manager
R. Hallisey, Department of Public Health, Commonwealth of Massachusetts
The Honorable Therese Murray
The Honorable Joseph Gallitano
T. MacGregor, Mass. Dept. of Public Comm. & Energy
Chairman, Plymouth Board of Selectmen
Chairman, Duxbury Board of Selectmen
Chairman, Nuclear Matters Committee
Plymouth Civil Defense Director
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Commonwealth of Massachusetts, SLO Designee

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Boston Edison

Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, Massachusetts 02360

L.J. Olivier
Senior Vice President Nuclear

August 28, 1998
BECo Ltr. #2.98.120

U.S. Nuclear Regulatory Commission
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Docket No 50-293
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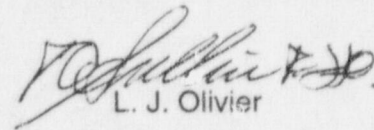
REPLY TO THE NOTICE OF VIOLATION, DATED AUGUST 6, 1998
(NRC INSPECTION REPORT NO. 50-293/98-04)

Enclosed is Boston Edison Company's reply to the Notice of Violation dated August 6, 1998 (Inspection Report No. 50-293/98-04).

This letter includes the following commitments.

- A comprehensive self-assessment of the effectiveness of the Maintenance Rule Improvement Program is being developed and will be performed to further ensure the continued full compliance with the requirements of 10CFR50.65. This will be completed by April 15, 1999.
- Nuclear Engineering Procedure 16.03, "10 CFR 50.65 NRC Maintenance Rule" will be revised to include the schedule for 10 CFR 50.65(a)(3) evaluation at the end of each refueling outage, not to exceed two years. This revision will be completed by December 31, 1998.

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


L. J. Olivier

Enclosure: Reply to the Notice of Violation
298120
WGL/VIO98-04-01, 04 & 05

cc: Mr. Alan B. Wang, Project Manager
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Senior Resident Inspector
Pilgrim Nuclear Power Station

4809080084

ENCLOSURE

NOTICE OF VIOLATION

VIOLATION: EA 98-277

- A. 10 CFR 50.65(a)(1) requires, in part, that holders of an operating license shall monitor the performance or condition of structures, systems and components (SSCs), within the scope of the monitoring program, as defined by 10 CFR 50.65(b), against licensee established goals, in a manner sufficient to provide reasonable assurance that such SSCs are capable of fulfilling their intended functions. Such goals shall be established commensurate with safety and, where practical, take into account industry-wide operating experience. When the performance or condition of a SSC does not meet established goals, appropriate corrective action shall be taken.

10 CFR 50.65(a)(2), requires, in part, that the monitoring as specified in 10 CFR 50.65(a)(1) is not required where it has been demonstrated that the performance or condition of a SSC is being effectively controlled by performing appropriate preventive maintenance, such that the SSC remains capable of performing its intended function.

Contrary to 10 CFR 50.65(a)(2), from July 10, 1996 to April 27, 1998, the licensee had elected not to monitor the performance or condition of the control rod drive system against established goals pursuant to the requirements of Section (a)(1), and failed to demonstrate that the performance or condition of the SSCs, within the scope of 10 CFR 50.65, had been effectively controlled by performing appropriate preventive maintenance pursuant to the requirements of Section (a)(2). Specifically, the licensee failed to establish unavailability measures for the anticipated transient without scram (ATWS) function of the control rod drive system. Without an unavailability measure, the ATWS function could be out-of-service for an excessive period of time rendering it incapable of performing its intended function.

This is a Severity Level IV violation (Supplement 1).

- B. 10 CFR 50.65(b) established the scope of the monitoring program for selection of safety-related and nonsafety-related structures, systems or components (SSCs) to be included within the maintenance rule program. The monitoring program shall include, in part, non-safety related SSCs that are relied upon to mitigate accidents or transients, or are used in the plant emergency operating procedures, or, or whose failure could cause a reactor scram or actuation of a safety-related system.

Contrary to the above, from July 10, 1996 to April 27, 1998, the licensee had failed to include in the scope of the Maintenance Rule program the heating, ventilation, and air conditioning system (HVAC) for the reactor building 480V switchgear environmental enclosures, which were designed to protect the switchgear from the consequences of high energy line breaks in the secondary containment (failure of this system could result in loss of safety significant loads) and the firewater system function of providing a backup (and supplemental) supply to the screenwash system (failure of this system could result in a plant trip in the event of a loss of normal system supply to screenwash system concurrent with grass intrusion and screen clogging).

This is a Severity Level IV violation Supplement 1.

REASON FOR THE VIOLATIONS

The reason for the above violations was human error. The failure to include, as of July 10, 1996, the unavailability performance criterion for the ATWS function of CRD, the HVAC motor

control center enclosure function, and the firewater system back up to the screenwash function in the Maintenance Rule was the result of our initial incomplete understanding of the requirements of the rule and our initial inability to remain current with evolving NRC expectations. These deficiencies were also not discovered during the overhaul of the Maintenance Rule Program in response to QA audit 97-08 because the self-imposed, aggressive schedule we established for the overhaul activities, in some cases, may not have allowed sufficient engineering assessment time to identify the deficiencies. A critical self-assessment is now in progress to ensure our upgraded Maintenance Rule Program fully incorporates the requirements of the rule and is complete and accurate (PR 98.0919).

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

- QA audit 97-08 was completed in September 1997 to determine the extent of compliance with 10 CFR 50.65. A Maintenance Rule Improvement Program was developed to provide effective corrective and preventive actions to resolve QA audit findings. A complete overhaul of Pilgrim's Maintenance Rule Program to correct the programmatic weakness was accomplished in May 1998 (PR 97.2869).
- The ATWS function of CRD was re-evaluated by the Expert Panel and determined to be risk significant. An appropriate unavailability performance criterion was established for the ATWS function of the CRD system and the CRD bases document revised and approved by the Expert Panel on June 18, 1998.
- The Reactor Building 480V switchgear environmental enclosure safety-related HVAC function and the firewater system function to provide a backup to the screenwash system were both added to the scope of the Maintenance Rule Program. Performance criteria were developed for these functions and the respective bases documents revised. The Expert Panel approved the revision to the screenwash system bases document on May 8, 1998, and the revision to the HVAC system bases document on June 29, 1998.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

A comprehensive self-assessment of the effectiveness of the Maintenance Rule Improvement Program is being developed and will be performed to further ensure continued full compliance with the requirements of 10CFR50.65. This will be completed by April 15, 1999.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved on June 29, 1998.

VIOLATION

- C. 10 CFR 50.65(a)(3) requires, in part, that performance and condition monitoring activities and associated goals and preventive maintenance activities shall be evaluated at least every refueling cycle provided the interval between evaluations does not exceed 24 months.

Contrary to the above, as of April 27, 1998, the licensee had failed to complete the periodic evaluation for the refueling cycle No. 11 which ended April 1997.

This is a Severity Level IV violation Supplement I.

REASON FOR THE VIOLATION

The reason for the violation was human error. The current NRC position for the completion of the 10 CFR 50.65(a)(3) periodic assessment requirement was misinterpreted (PR 98.0919).

The extent of this problem is limited to this one incident. The next (a)(3) evaluation is due at the end of refueling outage 12.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

The periodic evaluation required by 10 CFR 65(a)(3) was completed, approved, and issued on May 5, 1998. A copy of the evaluation report was sent to the NRC's Mr. John Caruso on May 5, 1998.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

Nuclear Engineering Procedure 16.03, "10 CFR 50.65 NRC Maintenance Rule" will be revised to include the schedule for 10 CFR 50.65(a)(3) evaluation at the end of each refueling outage, not to exceed two years. This revision will be completed by December 31, 1998.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved on May 5, 1998, when we completed the refueling cycle No. 11 evaluation.