



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
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KING OF PRUSSIA, PENNSYLVANIA 19406-1415

October 17, 1996

EA 96-209

Mr. D. M. Smith, President
PECO Nuclear
Nuclear Group Headquarters
Correspondence Control Desk
Post Office Box 195
Wayne, Pennsylvania 19087-0195

SUBJECT: NOTICE OF VIOLATION
(NRC Inspection Report Nos. 50-352/96-04; 50-353/96-04)

Dear Mr. Smith:

This letter refers to the NRC inspection conducted from May 7 through July 1, 1996, at your Limerick Generating Station facility. The findings of the inspection were discussed with your staff during an exit meeting on July 3, 1996. During the inspection, the inspectors reviewed the circumstances surrounding the substantial accumulation of debris on the Unit 1 "A" RHR pump suppression pool suction strainer which had been identified by your staff after an inadvertent actuation of a Unit 1 safety relief valve (SRV) that had opened and caused the reactor coolant system to depressurize on September 11, 1995. Approximately 30 minutes after the event, an RHR pump, which had been operating in the suppression pool cooling mode of operation, showed signs of cavitation. Subsequent underwater inspection indicated that the cavitation was caused by a collection of fibrous material and corrosion products on the pump's suction strainers.

Based on a review of the event and its associated causes, a violation of NRC requirements was identified involving the failure to establish adequate controls for excluding foreign material from the Unit 1 suppression pool. The violation was described in the NRC inspection report sent to you with our letter, dated July 30, 1996. In that letter, you were informed that this apparent violation was being considered for escalated enforcement and that a predecisional enforcement conference may not be necessary in order for the NRC to make an enforcement decision. In your response, dated August 29, 1996, you agreed that a conference was not needed and you described your corrective actions in that response.

The violation, which is also set forth in the enclosed Notice of Violation, involved the failure to comply with 10 CFR Part 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings," which requires that activities affecting quality shall be prescribed by documented instructions, procedures or drawings of a type appropriate to the circumstances. Prior to the SRV actuation on September 11, 1995, you had not established an effective instruction for a foreign materials exclusion (FME) program to ensure that the suppression pool did not contain materials which could clog the ECCS suction strainers. Specifically, the FME procedure for the suppression pool did not contain adequate cleanliness acceptance criteria, and did not provide adequate instructions on how to assess the effects of items dropped into the suppression pool. As a result, after the SRV opened on September 11, 1995, the A RHR pump was considered

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inoperable due to the accumulation of debris on its suppression pool suction strainers. Therefore, this violation has been categorized at Severity Level III in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy), NUREG-1600.

During your follow-up of the event, you noted that there was debris on the B RHR strainer, but to a lesser extent, and that the remaining ECCS suction strainers were essentially clean. You attributed the substantial accumulation of debris on the A RHR strainer to the significant period of time the pump had been operated in the suppression pool cooling mode of operation, compared to a much lower run time in that mode for the B RHR pump. You also concluded that the remaining ECCS strainers were essentially clean since they were operated infrequently. Notwithstanding your contentions, the A RHR pump was significantly degraded, and the RHR system could have been inoperable or in a degraded condition for an extended period because of such debris. In addition, debris on the A suction strainer may have been due to the fact that the majority of the blowdown occurred in the vicinity of this strainer, and not due to the length of time the A system operated.

In either case, the NRC is concerned that PECO Energy was unaware that debris had accumulated in the Unit 1 suppression pool water or the suction strainers due to the inadequate Foreign Material Exclusion (FME) program and plant housekeeping programs and procedures. Although debris was found in the Unit 2 suppression pool by your staff in February 1995, and Unit 2 was cleaned following that discovery, you were not proactive in aggressively pursuing at that time whether a similar condition existed at Unit 1. In fact, you did not perform inspection of the Unit 1 suppression pool during two maintenance outages that followed the Unit 2 suppression pool cleaning to determine if foreign material existed in the Unit 1 suppression pool.

These findings demonstrate the importance of management taking appropriate action to assure that (1) the Foreign Material Exclusion Program is appropriately implemented, and (2) your staff is proactive in evaluating adverse conditions identified at one unit to ensure degraded conditions do not exist at the other unit. It may have been fortuitous that only a limited amount of debris had collected on the other ECCS suction strainers at Unit 1. Additional debris, or lifting of other SRVs, may have rendered other systems inoperable.

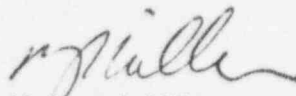
In accordance with the Enforcement Policy, a base civil penalty in the amount of \$50,000 is considered for a Severity Level III violation. Because your facility has not been the subject of escalated enforcement actions within the last 2 years, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Credit is warranted because your corrective actions were both prompt and comprehensive. Your corrective actions included, but were not limited to, the following: (1) cleaning the Unit 1 suppression pool; (2) testing of RHR pumps and declaring them operable prior to start-up; (3) implementing a program to monitor the differential pressure of the Suppression Pool suction strainers; (4) initiating FME accountability tracking during unit outages for Suppression Pool and Primary Containment; (5) sampling and trending suppression pool water for fibrous content on a monthly basis; and, (6) providing training to planner supervisors and lead technicians on the importance of FME controls for work in the drywell and suppression pool.

Therefore, to encourage prompt and comprehensive correction of violations, and in recognition of the absence of previous escalated enforcement action, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, it is important that you clearly understand that any future performance problems, especially involving missed opportunities to aggressively pursue a condition adverse to quality, could result in more significant enforcement action and civil penalties.

The NRC has concluded that the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved, are already adequately addressed on the docket in LER 95-008, and your letters dated October 6, 1995, November 16, 1995, March 1, 1996, June 10, 1996, and August 29, 1996. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, and its enclosure will be placed in the NRC Public Document Room (PDR).

Sincerely,



Hubert J. Miller
Regional Administrator

Docket Nos. 50-352, 50-353
License Nos. NPF-39, NPF-85

Enclosure: Notice of Violation

cc w/encl:

G. Hunger, Jr., Chairman, Nuclear Review Board and Director - Licensing

W. MacFarland, Vice President - Limerick Generating Station

J. Kantner, Regulatory Engineer - Limerick Generating Station

Secretary, Nuclear Committee of the Board

Commonwealth of Pennsylvania

PECO Energy

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