DCS

February 21, 1992

Docket Nos. 50-277 and 50-278
License Nos. DPR-44 and DPR-56
EA 92-001

Philadelphia Electric Company
ATTN: Mr. Dickinson M. Smith
Senior Vice President-Nuclear
Nuclear Group Headquarters
Correspondence Control Desk
Post Office Box 195
Wayne, Pennsylvania 19087-0195

Dear Mr. Smith:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES - $285,000
(NRC Combined Inspection Report Nos. 50-277/91-33; 50-278/91-33)

This letter refers to the NRC inspection conducted on November 5 through December 13, 1991, at the Peach Bottom Atomic Power Station, Delta, Pennsylvania. The inspection report was sent to you on December 24, 1991. During the inspection, the inspectors reviewed the circumstances associated with a violation of a Technical Specification Limiting Condition for Operation (LCO) which occurred at Unit 3 involving, in part, the inoperability of the Automatic Depressurization Subsystem (ADS). The violation was identified by a member of your staff and reported to the NRC. During the inspection, one other violation of NRC requirements was identified, involving the failure to identify and correct a similar condition at Unit 2. On January 17, 1992, an enforcement conference was conducted with you and members your staff to discuss the violations, their causes and your corrective actions.

The ADS at Unit 3 was inoperable between December 1989 and September 14, 1991, because the related solenoid operated valves (SOV), electrical cables, and splices, for the five ADS safety relief valves (SRV), had experienced thermal degradation, and the environmental qualification had expired. The thermal insulation surrounding the eleven SRVs, including the five dedicated to ADS, had been improperly installed during the prior refueling outage. As a result, a high temperature environment was created in the area of the SOVs, the electrical cables, and the splices, resulting in the expiration of the component qualification shortly after the startup in December 1989, and causing the thermal degradation.

The NRC is concerned that adequate control was not provided during the installation of the insulation during that refueling outage in 1989. In particular, there appeared to be insufficient licensee planning, oversight, and inspection of the installation activities. Maintenance packages generated

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to complete the replacement and installation of the SRV insulation, did not specify the use of appropriate drawings or instructions regarding how the insulation was to be installed and inspected. The procedure that was employed did not contain adequate guidance. Although this activity required the performance of post-maintenance inspection and a special procedure (SP) to ensure that all piping insulation inside the drywell was repaired, replaced, and properly secured before the plant was restarted, your staff did not identify the problem with SRV insulation. Further, during the Unit 3 mid-cycle outage in October 1990, your staff removed and replaced an SRV. At that time, although the insulation for that valve was improperly installed, and the condition was questioned by a maintenance worker, an adequate investigation was not performed and the insulation was reinstalled to the incorrect as-found condition.

In addition to the above, the NRC is also concerned with your failure, in view of the findings at Unit 3, to adequately evaluate and correct a similar problem at Unit 2 until after the condition was identified by an NRC inspector in December 1991. Although your staff did perform a visual inspection of the Unit 2 SRV thermal insulation during the unplanned outage on October 17, 1991, your staff concluded that the Unit 2 SRV insulation had been installed correctly, and documented this conclusion in Licensee Event Report (LER) 3-91-017. However, on December 12, 1991, an NRC inspector, while performing a tour of the Unit 2 and 3 drywells, found that the insulation on one of the Unit 2 ADS valves was improperly installed, in that the end of the SRV facing the solenoid valve and cabling was not completely covered.

The ADS is designed to serve the important safety function of depressurizing the reactor vessel in the event of the failure of the High Pressure Coolant Injection (HPCI) system, so that in the event of a small to intermediate sized loss of coolant accident (LOCA), the low pressure emergency core cooling systems (ECCS) can operate to inject water into the vessel and mitigate the consequences of the accident. The ADS is required to be operable whenever there is irradiated fuel in the reactor vessel and the reactor steam pressure is greater than 105 psig. The Technical Specification LCO does permit one valve in the ADS to be inoperable, for a period of up to 7 days, provided that the HPCI subsystem is operable. However, when reviewing the availability of the HPCI system during the operating cycle, your staff discovered that the HPCI subsystem was also out of service for a total of 510 hours.

The inoperability of the ADS for an extended period (Violation A), coincident with an inoperable HPCI subsystem for about 510 hours during that time, represents a significant safety concern involving the loss of safety functions of these two subsystems. As a result, the ability of the plant to automatically cope with a small to intermediate break LOCA was lost. This condition, as well as your failure to properly identify and correct a similar insulation error at Unit 2 until informed of the condition by the NRC inspector (Violation B), represent significant regulatory concerns. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1991), Violations A and B have been categorized at a Severity Level II and III, respectively. The violations are described in the enclosed Notice.

The NRC recognizes that corrective actions have been taken or planned to prevent recurrence of these violations. These actions, which were described at the enforcement conference, as well as in a Licensee Event Report, included: (1) the replacement of all the Unit 3 SOVs and cables on each of the SRVs; (2) proper reinstallation of the thermal insulation after the component repairs were completed; (3) revision of the applicable maintenance procedure; (4) planned revision of appropriate training to add guidance concerning insulation; and (5) evaluation of Units 2 and 3 to identify any similar problems. The NRC also recognizes that prior to the discovery of this event, actions had been taken to improve your ability to promptly identify and correct conditions adverse to quality. These actions included the assignment of a senior engineer as event investigation coordinator; an increase in the staff dedicated to that responsibility; strengthening of applicable procedures and training; and reduction in the backlog of outstanding event reports. However, these corrective actions, including those taken prior to the discovery of the ADS inoperability, were not considered prompt and extensive in that they did not result in the immediate identification and correction of the condition that existed at Unit 2.

To emphasize the importance of ensuring that the reactor is (1) operated safely and in accordance with the Technical Specifications; and (2) conditions adverse to quality, when they exist, are promptly identified and corrected, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties (Notice) in the cumulative amount of $285,000 for the violations set forth in the enclosed Notice.

The base value of a civil penalty for a Severity Level II violation is $80,000. The escalation and mitigation factors set forth in the enforcement policy were considered and the civil penalty for Violation A was escalated by 100 percent. Although the violation was identified and reported to the NRC by your staff, no adjustment was applied for this factor since you had prior opportunities to discover and correct it sooner. No escalation or mitigation was judged warranted for your corrective actions. Though your long term actions appear acceptable, your immediate actions were unacceptable since they did not result in the identification and correction of the similar problem at Unit 2 (which constitutes the second violation). Likewise, no escalation or mitigation was deemed warranted based on your overall past performance. You received a Category 2 rating in the operations area during the last SALP period. A 100 percent escalation of the base civil penalty was applied based on the added significance of the duration of the inoperable ADS system - essentially, an entire operating cycle. The other factors were considered, and no further adjustments were made.

The base civil penalty for a Severity Level III violation is $50,000. The escalation and mitigation factors set forth in the enforcement policy were considered and the civil penalty for Violation B was escalated by 150 percent. The civil penalty was escalated by 50 percent because an NRC inspector identified the ADS insulation deficiency at Unit 2 about two months after you specifically inspected for that condition. A 50 percent mitigation was applied

for the comprehensive corrective actions undertaken, as discussed above, once you were put on notice of the problem at Unit 2. The base civil penalty was increased 100 percent for your poor past performance in the corrective action area, as exemplified by a Severity Level III violation and civil penalty issued in 1990 (see EA 90-105) and four Severity Level IV violations in the corrective actions area. An additional 50 percent increase was deemed appropriate based on the two month duration that the deficient condition existed after you should have reasonably identified the Unit 2 ADS insulation problem. The other factors were considered and no further adjustments were made.

Finally, we note our concerns that the lack of timely and effective corrective action at issue in Violation B is not an isolated issue. As indicated above, the civil penalty for this item was escalated due to your poor past performance, including EA 90-105 relating to the emergency service water issue. We have now completed our inspection of your corrective action for the emergency service water system. While we do not intend to issue another citation for inadequate corrective action, we are concerned that your actions were not particularly aggressive in the follow-up and resolution of this potential safety deficiency, which is the heart of Violation B. Thus, we emphasize again the need to implement an effective program for the identification and resolution of deficiencies.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

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.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,

Signed by W. F. Kane (for)

Thomas T. Martin
Regional Administrator

Enclosure:
Notice of Violation and Proposed Imposition
of Civil Penalties

cc:
D. R. Helwig, Vice President, Nuclear Engineering and Services
R. N. Charles, Chairman, Nuclear Review Board
D. B. Miller, Vice President, Peach Bottom Atomic Power Station
C. Schaefer, External Operations - Nuclear, Delmarva Power & Light Co.
K. P. Powers, Plant Manager, Peach Bottom Atomic Power Station
A. A. Fulvio, Regulatory Engineer, Peach Bottom Atomic Power Station
J. W. Austin, Project Manager, Peach Bottom Atomic Power Station
J. W. Durham, Sr., Senior Vice President and General Counsel
J. A. Isabella, Director, Generation Projects Department, Atlantic Electric
B. W. Gorman, Manager, External Affairs
E. J. Cullen, Esquire, Assistant General Counsel (Without Report)
R. L. Hovis, Esquire
R. McLean, Power Plant Siting, Nuclear Evaluations
G. J. Beck, Manager, Licensing Section
D. Poulsen, Secretary of Harford County Council
R. Ochs, Maryland Safe Energy Coalition
J. H. Walter, Chief Engineer, Public Service Commission of Maryland
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
Commonwealth of Pennsylvania
Resident Inspector, Peach Bottom

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DWilliams, OIG
EJordan, AEOD
Resident Inspector
WTroskoski, OE
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EA File
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RI:OE	RI:DRP	RI:DRP	RI:DRP	RI:RC
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Kane	Martin	Lieberman	Sniezek
2/20/92	2/21/92		

Rec'd by phone from OE on 2/18/92 BJM