

DCS

JUL 16 1990

Docket Nos. 50-277 and 50-278
License Nos. DPR-44 and DPR-56
EA 90-105

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

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - \$75,000
(NRC Inspection Report Nos. 50-277/90-200; 50-278/90-200 and
50-277/90-06; 50-278/90-06)

This letter refers to the NRC safety system functional inspection (SSFI) conducted between February 5-February 16 and February 26-March 2, 1990, as well as a routine resident inspection conducted between February 20-April 2, 1990 at the Peach Bottom Atomic Power Station, Delta, Pennsylvania. The inspection reports were sent to you on April 20, 1990 and May 15, 1990, respectively. During these inspections, violations of NRC requirements were identified. Three of those violations involved design, design control and operating practices associated with the emergency service water (ESW) system. On June 1, 1990, an enforcement conference was held with you and members of your staff to discuss the violations, their causes, and your corrective actions.

Violation A, which is described in the enclosed Notice, involves the failure to adequately identify the safety significance of, track, and to correct conditions adverse to quality in the ESW system which were initially identified during a complete network analysis performed by your contractor in 1983 and 1984. Specifically, the analysis indicated that the ESW system flow rates could be significantly lower than design flow rates, and may only minimally meet calculated load demands. Further, it was recommended by your contractor in 1984 and your engineering staff in 1989 that integrated ESW system field tests be performed to validate the network analysis. Despite such recommendations neither the testing nor other prompt and effective actions were taken to assure that the ESW system could meet its design performance requirements until the concern was raised by the NRC inspectors during the SSFI inspection. Subsequent to the SSFI inspection, analysis and testing you performed determined that for Unit 2, the ESW system would not provide the minimum acceptable flows to ensure that 11 of the 20 emergency core cooling system (ECCS) and reactor core isolation cooling (RCIC) room coolers would perform their design basis heat removal function during all environmental conditions. As a result, the facility operated for an indeterminate period of time with the ESW system inoperable.

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Violations B and C, which are also described in the enclosed Notice and which are of lesser significance, involve (1) violation of a technical specification limiting condition for operation (LCO) by continued operation of Unit 2 for approximately 32 hours with the "A" ESW pump inoperable due to the loss of its emergency power supply, the emergency cooling water pump inoperable due to ongoing maintenance, and the "B" ESW subsystem isolated from Unit 2 due to valve misalignment and (2) two examples in which changes were made to the ESW system as described in the FSAR without adequate written safety analyses to provide a basis for a determination that the changes did not involve unreviewed safety questions. With respect to Violation B, the violation occurred because: (a) two remote manual crosstie valves between the "A" and "B" ESW subsystems were misaligned as a result of improper valve restoration following maintenance activities; (b) operating personnel did not notice the off-normal valve position indication in the control room; and (c) your staff did not recognize this alignment as constituting an inoperable condition. Further, neither an adequate evaluation of ESW operability, nor an adequate evaluation of the reportability of this condition to the NRC was performed until prompted by the NRC staff. Although the mis-alignment of the valves would have prevented normal ESW flow to the Unit 2 ECCS equipment during a design basis accident, the safety significance of the condition was fortuitously minimized by the existence of a previously unrecognized flow path allowing for partial cooling.

The NRC staff is particularly concerned about the lack of aggressive management action to ensure the initiation of corrective actions to resolve the ESW system deficiencies identified by your contractor in 1983 and 1984 during the network analysis. Specifically, although both the engineering department and the plant staff were aware of these deficiencies, neither recognized the potential safety significance of the deficiencies, nor initiated timely and effective corrective actions to resolve the issues until prompted by the NRC staff.

These violations represent instances where plant operational conditions were not systematically evaluated in a timely manner to ensure that the a system important to the operation of your facility was being operated in accordance with the technical specifications and within the design limits set forth in the FSAR. Further, proper coordination and communications were not exercised throughout your organization to ensure that the safety issues involved were promptly identified and corrected. To emphasize the need to improve performance in these areas I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$75,000 for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (Enforcement Policy) (1990), the violations described in the enclosed Notice have been categorized in the aggregate as a Severity Level III problem.

The base civil penalty for a Severity Level III problem is \$50,000. The escalation and mitigation factors set forth in the enforcement policy were considered and the base civil penalty has been escalated 50% after evaluating the adjustment factors as follows: (1) Violations A and C were identified by



the NRC inspectors, and reasonably should have been identified by your staff sooner while Violation B, which was identified by your staff, was not properly evaluated or reported, and therefore, 50% escalation of the base civil penalty is warranted; (2) once the violations were identified to you, your corrective actions (which included the implementation of an extensive testing, inspection, maintenance and modification program) were considered prompt and comprehensive and therefore, 50% mitigation of the base civil penalty is warranted; (3) your performance during the past two years improved enough to warrant restart of the facility but has not improved enough to warrant mitigation of the base civil penalty and therefore, no adjustment to the base civil penalty is being made for past performance; and (4) the base civil penalty has been increased by 50% for prior notice because you had specific notice of the potential deficiencies in the ESW system as a result of the network analysis performed by your contractor in 1983 and 1984. The NRC staff also considered escalating the civil penalty amount because Violation A existed for an extended duration; however, since this factor was considered in establishing the severity level of the problem, further escalation on this factor was considered inappropriate. Escalation of the base civil penalty for multiple examples was also considered but found inappropriate in this case. Therefore, on balance, the base civil penalty has been increased by 50%.

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. Your response should also describe the actions you have taken or plan to take to assure safety issues are identified and resolved in a timely manner. 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 and Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC's Public Document Room.

The responses directed by this letter and accompanying 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. 96-511.

Sincerely,

Original signed by
R. Burnett

Thomas T. Martin
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty



cc w/encl:

D. R. Helwig, Vice President of Nuclear Engineering and Services
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