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

December 12, 1995

EA 95-216

Mr. Leon R. Eliason
Chief Nuclear Officer and President
Nuclear Business Unit
Public Service Electric and Gas Company
P.O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $100,000
(NRC Inspection Report No. 50-354/95-81)

Dear Mr. Eliason:

This letter refers to the NRC inspection conducted on August 7-16, 1995, at the Hope Creek Nuclear Generating Station. During the inspection, the inspectors conducted an independent evaluation of the circumstances surrounding an event which occurred on July 7-9, 1995 involving the partial bypass of shutdown cooling flow from the reactor vessel. During the inspection, apparent violations of NRC requirements were identified, and were described in the NRC inspection report transmitted with our letter dated September 25, 1995, and also in the NRC letter, dated October 11, 1995. On November 6, 1995, a Predecisional Enforcement Conference was conducted with you and members of your staff to discuss the violations, their causes, and your corrective actions.

The bypass of the shutdown cooling flow from the reactor occurred when reactor operators failed to correctly implement a procedure which required that the reactor recirculation pump suction and discharge valves be alternately opened and closed, for each 75 degree temperature drop in the isolated loop, in order to preclude thermal binding of the recirculation pump discharge valves. After opening the discharge valves, the valves were not closed, as required by the procedure, (for almost 20 hours in one case, and for approximately two hours in the other case) causing shutdown cooling flow to bypass the reactor vessel. The resultant decrease in decay heat removal led to an increase in the reactor coolant system temperature and pressure, and an inadvertent and undetected change in the plant's operational condition from cold shutdown to hot shutdown for more than 8 hours. In addition, this procedural violation caused a loss of temperature monitoring capability provided by the shutdown cooling system in that the Residual Heat Removal (RHR) heat exchanger inlet temperature indicator no longer provided a valid indication of average reactor coolant system temperature.

The procedural violation is described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty. Also described therein are three additional violations of the technical specification limiting conditions for operation that were, in part, caused by this failure to follow procedures. These additional violations involved (1) the inoperability of the RHR shutdown cooling loops in that the shutdown cooling system did not maintain the plant in a cold shutdown condition, and did not provide sufficient reactor core flow to ensure accurate coolant temperature monitoring; (2) the inoperability of the RHR system shutdown cooling mode pressure isolation signals while the reactor was in operational Condition 3 (hot shutdown); and (3) the inoperability of the main steam isolation valve steam sealing system subsystems due to the drywell primary containment instrument gas (PCIG) system being tagged out and depressurized in preparation for outage maintenance activities.

In addition to these violations, the NRC is concerned that although this event was identified by your staff on July 9, 1995, senior plant management did not assess correctly and respond appropriately to the significance of the event in a timely manner. Specifically, a Significance Level I Action Request had been written on July 9, 1995 by the plant operations staff, describing the circumstances that led to the event. However, the investigation was not timely. Specifically, although the Safety Review Group (SRG) and Quality Assessment (QA) organization both identified the significance of the event and the inadequacies in plant management response, plant management did not respond to the SRG and QA findings for 7 days, and a shutdown cooling bypass event team was not chartered until July 20, 1995, 12 days after the event. As a result, a comprehensive investigation of the event was delayed, contributing to a delay in notification to the NRC.

The NRC recognizes that the event had no direct adverse effect on the health and safety of the public or plant personnel, and adequate plant systems, such as the Emergency Core Cooling System, were available to add inventory to the reactor vessel and remove decay heat in the event of a complete loss of shutdown cooling function. Nonetheless, the event was safety significant in that two required primary fission product barriers, namely, the reactor coolant system fission product barrier and the primary containment fission barrier, were in a degraded condition with the plant in the hot shutdown condition. Therefore, the violations have been categorized in the aggregate at Severity Level III in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600, (60 FR 34381; June 30, 1995).

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 Hope Creek has been the subject of an escalated enforcement action within the last two years (namely, issuance of a Severity Level III violation issued on July 20, 1995; Reference, EA 95-087), the NRC considered whether credit was warranted for identification and corrective action in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy.

Credit for identification is not warranted because there were a number of opportunities which were missed by the operators to identify the event sooner. Specifically, they failed to: diagnose plant conditions based on available indications; recognize that certain indications (i.e. temperature) were inaccurate; and recognize the impact of the mispositioned reactor recirculation valves on the operability of the shutdown cooling function. Credit for corrective action also is not warranted. Although your actions to place the valve in the correct position, once identified, were prompt, senior plant management failed to respond to the QA and SRG findings until July 20, 1995, when your General Manager returned, at which time a comprehensive event evaluation and a root cause analysis were conducted, and additional appropriate corrective actions were taken. These actions, which were noted in the inspection report, your presentation at the predecisional enforcement conference, and in the Licensee Event Report, dated August 9, 1995, included, but were not limited to: (1) restatement and reinforcement of management expectations on procedure compliance, (2) revision of applicable operating procedures, (3) modification of operator training, (4) clarification of guidelines/expectations for investigation of significant events, and (5) enhancement of guidance on reporting requirements.

Therefore, to emphasize (1) the importance of adherence to procedural requirements to ensure that the plant is operated in accordance with the technical specifications, and (2) prompt identification and comprehensive correction of violations when they exist, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of $100,000 (twice the base amount), for this Severity Level III problem. The base amount was doubled since credit was not provided for identification nor corrective actions, and you had a previous escalated enforcement action in the past two years.

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 may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. 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, its enclosure, and your response will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

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,

Thomas T. Martin
Regional Administrator

Docket Nos. 50-354
License Nos. NPF-57

Enclosure: Notice of Violation and
Proposed Imposition of Civil Penalty

cc w/encl:
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