

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Public Service Electric and Gas Company
Hope Creek Nuclear Generating Station

Docket No. 50-354
License No. NPF-57
EAs 96-125; 96-281

During NRC inspections conducted between February 11 and March 30, 1996, and between June 23 and August 3, 1996, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalties are set forth below:

I. VIOLATIONS RELATED TO SURVEILLANCE TESTING OF CONTROL RODS
FOLLOWING MAINTENANCE

- A. Technical Specification (TS) 6.8.1.a requires, in part, that written procedures in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978, shall be established, implemented and maintained. Sections 8 and 9, respectively, of Appendix A of Regulatory Guide 1.33 specify procedures for performing surveillance tests and for performing safety-related maintenance.

Hope Creek Nuclear Business Unit Administrative Procedure NC.NA-AP.ZZ-0009(Q), Revision 9, Work Control Process, Section 5.3.2.p, and Administrative Procedure NC.NA-AP.ZZ-0050(Q), Revision 3, Station Testing Program, Section 5.1.2, require, in part, that appropriate TS surveillance testing be planned and conducted following maintenance on safety-related equipment.

Contrary to the above, prior to March 13, 1996, the licensee did not plan the appropriate surveillance testing on certain safety-related equipment following maintenance. Specifically, although maintenance had been conducted on 68 control rods (such as packing adjustments on scram inlet or outlet valves, or replacement of scram solenoid pilot valves) during the November 1995 through March 1996 outage, the licensee did not plan for testing the scram insertion capability for the control rods following these maintenance activities that could affect the scram insertion time, but rather planned for deferral of testing until after the plant startup even though the TS would require testing prior to the startup. (01013)

- B. TS Surveillance Requirement 4.1.3.2.b requires, in part, that the maximum scram insertion time of control rods shall be demonstrated for specifically affected control rods following maintenance on the control rod or control rod system which could affect the scram insertion time.

Contrary to the above, on February 15, 1991, the plant started up without completion of surveillance tests required for 24 control rods following maintenance, and on April 25, 1994, the plant was started up without completing the required surveillance testing on two control rods following maintenance. (01023)

These two violations are classified in the aggregate as a Severity Level III problem (Supplement I).
Civil Penalty - \$50,000

II. OTHER VIOLATIONS OF NRC REQUIREMENTS ASSESSED A CIVIL PENALTY

- A. 10 CFR Part 50, Appendix B, Criterion XVI, requires, in part, that measures be established to assure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. Also, for significant conditions adverse to quality, measures shall assure that the cause of the condition is determined and corrective action taken to preclude recurrence.
1. Contrary to the above, from January 1992 to February 27, 1996, the licensee did not establish measures to assure that a certain condition adverse to quality was promptly identified and corrected. Specifically, in January 1992, the licensee identified that 15 pairs of High Energy Line Break (HELB) reactor building ventilation supply duct backdraft isolation dampers were installed backwards (since original plant construction) in various reactor building filtration, recirculation, and ventilation system supply ducts. This configuration deviated from plant design requirements, in that the "self-sealing" feature was invalidated, thereby causing a condition adverse to quality, and this condition adverse to quality was not corrected until February 27, 1996. (02013)
 2. Contrary to the above:
 - a. From May 10, 1992 to October 12, 1992, the licensee did not establish measures to assure that a condition adverse to quality was promptly identified and corrected. Specifically, on May 10, 1992, the flow control needle valve for control rod No. 22-35 was adjusted in an attempt to correct a double notching

condition. This adjustment resulted in a rod withdrawal speed of 5 inches per second, which was in excess of the value of 3.6 inches per second assumed in Section 15.4.1.2 of the Updated Final Safety Analysis Report for rod withdrawal error analysis. The withdrawal speed was also in excess of the speeds bounded by previously performed General Electric analyses. However, the rod withdrawal speed was not corrected until October 12, 1992.

- b. On several occasions prior to March 1996, the withdrawal speeds were in excess of 3.6 inches per second and, although actions were taken in each case to adjust the withdrawal speed to be within limits, the licensee did not establish measures to address the cause of this significant condition adverse to quality. (02023)

This is a Severity Level III problem (Supplement I).
Civil Penalty - \$50,000

- B. 10 CFR 50.59(a)(1) states, in part, that the holder of a license may make changes in the facility as described in the safety analysis report, without prior Commission approval, unless the proposed changes involve changes in the TS incorporated in the license, or an unreviewed safety question. 10 CFR 50.59(a)(2) states, in part, that an unreviewed safety question shall be deemed to exist if the margin of safety as defined in the basis of any TS is reduced.

Contrary to the above, the licensee made changes to the facility as described in the Section 9.2.1.4 of the FSAR. Section 9.2.1.4 of the FSAR stated, in part, that a self-cleaning strainer downstream of each station service water pump continuously backwashes a small amount of water via a bypass valve and when the strainer is subjected to an excessive differential pressure, a high differential switch opens the main backwash valve. The changes to the facility involved unreviewed safety questions, without prior Commission approval. Specifically,

1. In February 1996, the licensee implemented design change DCP 4EC3546 which would automatically open the main backwash valve whenever the associated service water pump started, and leave the valve open as long as the pump was running, rather than maintain the valve in the normally closed position. The modification constituted an unreviewed safety question because it reduced the margin of safety as defined in the basis of TS 3/4.7.1, "Service Water Systems" in that it

decreased the amount of station service water system flow available for the safety auxiliary cooling system by diverting some of the flow away from the heat exchangers to backwash the strainers. However, this change was made without Commission approval.

2. After installation of design change DCP 4EC3546 which permitted automatic opening of the main backwash valve whenever the associated service water pump started, the licensee discovered that flow measurements taken during post modification testing did not compare favorably to SW flow benchmarks. However, this discrepancy was not considered important because a flow balance completed in 1992 had verified adequate flow through the station auxiliaries cooling system heat exchangers with the backwash valve full open. As a result, the licensee allowed the condition to continue and compensated for it by revising the 10 CFR 50.59 safety evaluation performed to support the modification, by administratively limiting the ultimate heat sink (UHS) temperature to 84.6 degrees F, a value less than the TS limit of 88.6 degrees F. This temporary reduction in UHS water temperature was necessary to ensure design basis heat removal requirements could be met until a complete service water flow balance could be conducted following plant restart. The licensee approved this change in March 1996 and continued to control the system with this administrative limit substituted for a TS limit, rather than closing the valve or obtaining a change to the TS. (02033)

This is a Severity Level III violation (Supplement I).
Civil Penalty - \$50,000

III. VIOLATION NOT ASSESSED A CIVIL PENALTY

TS 3.7.1.2 (b) requires, in part, that the service water system loops be comprised of an operable flow path capable of taking suction from the Delaware River (ultimate heat sink) and transferring the water to the Safety Auxiliary Cooling System (SACS) heat exchangers.

Contrary to the above, from November 1992 until March 17, 1996, the service water flow throttle valves to the SACS heat exchangers were improperly set following modification activities in November 1992. As a result, the flow path was not capable of transferring sufficient cooling water from the Delaware River to the SACS heat exchangers for certain design basis postulated operating conditions, namely, extreme low river water level, pump degradation, and high river water temperature.

This is a Severity Level III violation (Supplement I).

Pursuant to the provisions of 10 CFR 2.201, Public Service Electric and Gas Company (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalties (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, and if denied, the reasons why, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved.

If an adequate reply is not received within the time specified in this Notice, an Order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalties by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the cumulative amount of the civil penalties, or may protest imposition of the civil penalties in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalties will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice, in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answer may request remission or mitigation of the penalties.

In requesting mitigation of the proposed penalties, the factors addressed in Section VI.B.2 of the Enforcement Policy should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing civil penalties.

Upon failure to pay any civil penalties due that subsequently have been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalties, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

Enclosure

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The response noted above (Reply to Notice of Violation, letter with payment of civil penalties, and Answer to a Notice of Violation) should be addressed to: James Lieberman, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, and a copy to the NRC Senior Resident Inspector at the facility that is the subject of this Notice.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR. If redactions are required, a proprietary version containing brackets placed around the proprietary, privacy, and/or safeguards information should be submitted. In addition, a non-proprietary version with the information in the brackets redacted should be submitted to be placed in the PDR.

Dated at King of Prussia, Pennsylvania
this 23rd day of October 1996