



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

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OFFICE OF THE  
CHAIRMAN

May 25, 1979

The Honorable Richard Thornburgh  
Governor of Pennsylvania  
Harrisburg, Pennsylvania 17120

Dear Governor Thornburgh:

As we agreed, the NRC has conducted inspections of reactors in Pennsylvania other than Three Mile Island Unit 2. These inspections -- of Three Mile Island Unit 1, Beaver Valley, and Peach Bottom Units 2 and 3 were conducted to provide a prompt assessment of facility operation in light of the recent events of Three Mile Island Unit 2. The results of these inspections are summarized in Enclosure 1 to this letter. Enclosure 2 is the detailed report on the inspection of the Peach Bottom Units 2 and 3 facilities. The detailed reports of the inspections of Beaver Valley and Three Mile Island Unit 1 have not yet been published. I will forward them to you as soon as they are available.

The inspectors concluded that these facilities are in compliance with NRC safety requirements. Although items of noncompliance were noted at Peach Bottom and Beaver Valley, these were not of direct safety concern and either have been or will be corrected by the licensee with corrective action verified by the NRC. Peach Bottom currently has a resident inspector; Beaver Valley is scheduled for resident assignment before fall 1979.

Three Mile Island Unit 1 voluntarily entered into a cold shutdown condition on March 30, 1979. At present, there are no plans to resume operation of this unit in the near future. Our inspection of this unit has confirmed facility conformance with license conditions applicable to the cold shutdown mode of operation.

I would like to take this opportunity to extend the Commission's appreciation for your assistance and cooperation during the recent trying period.

Sincerely,

*Joseph M. Hendrie*  
Joseph M. Hendrie  
Chairman

Enclosures:

1. Inspection Findings of Operating Plants in Pennsylvania
2. Office of Inspection and Enforcement Combined Inspection Report No. 50-277/79-11 and 50-278/79-12

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## INSPECTION FINDINGS OF OPERATING PLANTS IN PENNSYLVANIA

Both Peach Bottom Units 2 and 3, located in Delta, Pennsylvania, are boiling water reactors designed by the General Electric Company and, except for required maintenance outages, are nominally operating at rated power. An NRC resident inspector is assigned to the Peach Bottom site to conduct routine inspections. A special inspection was conducted by the resident inspector, assisted by regional based inspectors, during the period from April 9 to April 13 and April 25 to April 26, 1979.

Beaver Valley Unit 1, located in Shippingport, Pennsylvania, is a pressurized water reactor designed by the Westinghouse Electric Corporation. Beaver Valley 1 voluntarily entered into a cold shutdown condition on March 13, 1979, due to concerns associated with the seismic design of piping, and has been maintained in cold shutdown in compliance with the Commission's Show Cause Order of March 13, 1979. Resumption of power operation at Beaver Valley 1 is subject to further Commission action. Beaver Valley 1 startup from cold shutdown is not expected to occur in the near future. An NRC resident inspector is scheduled to be assigned to the Beaver Valley site before the end of the summer of 1979. A special inspection of this unit was completed during the period from April 16 to April 24, 1979 by regional based inspectors.

Three Mile Island Unit 1, located near Middletown, Pennsylvania, is a pressurized water reactor designed by the Babcock and Wilcox Company. Three Mile Island 1 voluntarily entered into a cold shutdown condition on March 30, 1979. At present, there are no plans to resume operation of this unit in the near future. A special inspection of this unit was conducted on April 19 and April 21, 1979, by a regional based inspector presently on temporary assignment at the Three Mile Island site. The results of the inspection at Three Mile Island 1 confirmed operation of the facility in conformance with license conditions applicable to the cold shutdown mode of operation. The NRC inspector verified by direct observations and review of completed facility procedures that plant systems required to maintain long term core cooling are operable, and that continued system operability is being assured through periodic testing. Our inspection and monitoring of Unit 1 operation will continue during the period of cold shutdown to assure the facility continues to be maintained in a safe condition.

The objective of the special inspections at Peach Bottom and Beaver Valley was to provide direct and independent NRC verification of facility operation in conformance with license conditions, with particular emphasis given to those plant systems and procedures involved in the Three Mile Island incident. Because light water reactors of different basic types are involved with the above facilities, inspections at each site concentrated on safety systems associated with each type of reactor. Also,

because the individual reactors are currently in different modes of operation, the inspections were directed toward verifying conformance with license conditions applicable to the operating mode. In general, the special inspections at the Peach Bottom and Beaver Valley sites included the following: (1) Briefings were conducted with plant operators to discuss the circumstances that led to the Three Mile Island incident, as well as those factors which caused the incident to progress as it did. The briefings gave particular emphasis to administrative controls which assure operational readiness of emergency plant systems. In many cases, the briefings conducted by NRC personnel augmented similar training being given by the utilities; (2) Plant procedures which establish operational alignment of safety systems were reviewed for accuracy. The physical alignment of safety systems was verified by direct observation by the inspectors; and, (3) Periodic test and maintenance procedures which demonstrate the operational readiness of safety systems were reviewed to assure that the procedures met the stated objectives. Administrative controls which govern the operability of safety systems were reviewed to assure that adequate provisions exist to return components to an operable status following testing or maintenance.

The results of inspections at Peach Bottom Units 2 and 3 are given in the Office of Inspection and Enforcement Combined Inspection Report No. 50-277/79-11 and 50-278/79-12, provided as Enclosure 2. The NRC review found that the Peach Bottom facilities are being operated safely. In particular, those plant systems which would be called upon to respond to transients and to assure safe shutdown of the facility were found capable of performing their intended function. Inspections at Peach Bottom disclosed two items of noncompliance with license conditions associated with system valve alignment requirements and administrative reviews of plant procedures. However, the items of noncompliance identified would not have resulted in a loss of safety system function. Actions to correct the system alignment item of noncompliance were taken promptly and verified as having been completed by the resident inspector. Actions taken to correct the item of noncompliance dealing with the administrative reviews of procedures will be the subject of the licensee's response to our enforcement letter and will be reviewed for adequacy by the Region I Office when received. Enclosure 2 also documents additional actions being taken by the Philadelphia Electric Company to enhance the safe operation of Peach Bottom Units 2 and 3. These actions result in strengthening the controls established to assure the operability of safety systems.

Concurrent with the above inspection efforts, Inspection and Enforcement Bulletin No. 79-08, dated April 14, 1979, "Events Relevant to Boiling Water Power Reactors Identified During the Three Mile Island Incident,"

was issued to the Philadelphia Electric Company and other boiling water reactor facility operators. The Philadelphia Electric Company's response to Bulletin 79-08, dated April 25, 1979, has been reviewed by the resident inspector. The inspector confirmed that the licensee forwarded copies of the Bulletin to appropriate licensee representatives for review and has assigned responsibilities to complete all actions required by the Bulletin. The resident inspector also verified that the licensee has taken the following actions: (1) Written instructions have been provided to plant operators to assure that plant safety systems are not overridden by manual operation unless continued operation of the equipment would result in unsafe plant conditions; and, (2) Written instructions are in effect which provide for notification to the NRC, within one hour, any time a reactor is not in a controlled or expected condition of operation, and which provide for establishing and maintaining an open communications channel with the NRC at that time. Other areas requiring licensee action by Bulletin 79-08 are subject to ongoing NRC review and verification, and will be documented in subsequent Office of Inspection and Enforcement Inspection Reports.

Due to the present cold shutdown status of Beaver Valley 1, a detailed alignment verification of all safety systems required for power operation could not be conducted. All other safety systems and Technical Specification requirements dealing with power operation will be inspected concurrent with the facility's return to power. Current inspection at Beaver Valley 1 found that those plant systems required for cold shutdown operation and which assure long term core cooling capability were operable and in compliance with license requirements. Additionally, plant procedures and administrative controls which provide instructions to align normal operating and safety systems to support power operation were reviewed and found adequate to meet their objectives. Inspection at Beaver Valley 1 disclosed an item of noncompliance with a license condition associated with requirements for testing a system used to filter radioactive gases prior to release to the environs. The identified item of noncompliance would not have resulted in the loss of capability to process radioactive gases in accordance with license requirements. The inspection at Beaver Valley 1 also identified three other items which require further review and resolution by the Duquesne Light Company, and are associated with procedural and plant system controls. The changes resulting from this review, when implemented, should serve to strengthen existing controls that assure safety systems are capable of performing their intended functions. In addition to those actions required as a result of our inspection, the Duquesne Light Company has independently established an internal task force to review the Three Mile Island incident, along with the related NRC Bulletins and correspondence, for the purpose of assessing their impact on Beaver Valley 1 and the need for additional actions. This task force will evaluate changes in the methods

of operation, system design and administrative controls which have been proposed to enhance safe facility operation. The items identified by NRC inspectors, as well as those changes proposed by the licensee, will be subject to additional review by the NRC. The results of the present and followup inspection efforts will be documented in subsequent Office of Inspection and Enforcement Inspection Reports.

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
631 PARK AVENUE  
KING OF PRUSSIA, PENNSYLVANIA 19406

Enclosure 2

20 APR 1979

Docket Nos. 50-277  
50-278

Philadelphia Electric Company  
ATTN: Mr. S. L. Daltroff  
Vice President  
Electric Production  
2301 Market Street  
Philadelphia, Pennsylvania 19101

Gentlemen:

Subject: Combined Inspection 50-277/79-11 and 50-278/79-12

This refers to the inspection conducted by Mr. E. G. Greenman of this office on April 9-13, 1979 at Peach Bottom Atomic Power Station, Units 2 and 3 of activities authorized by NRC License Nos. DPR-44 and DPR-56 and to the discussions of our findings held by Mr. Greenman with Mr. W. T. Ullrich of your staff at the conclusion of the inspection, and to a subsequent telephone discussion between Mr. Greenman and Mr. Ullrich on April 20, 1979.

Areas examined during this inspection are described in the Office of Inspection and Enforcement Inspection Report which is enclosed with this letter. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Based on the results of this inspection, it appears that certain of your activities were not conducted in full compliance with NRC requirements, as set forth in the Notice of Violation, enclosed herewith as Appendix A. These items of noncompliance have been categorized into the levels as described in our correspondence to you dated December 31, 1974. This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within twenty (20) days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you and the results achieved; (2) corrective steps which will be taken to avoid further items of noncompliance; and (3) the date when full compliance will be achieved.

With respect to Appendix A, we note that you have corrected Item No. A, therefore in your response you need only address corrective steps which will be taken to avoid further items of noncompliance of this nature.

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20 APR 1979

Item number A-3 shown in the Notice of Violation enclosed with this letter, is a recurrent or uncorrected item. In your response please give this matter your particular attention.

Information contained within the enclosed inspection report has been discussed with Mr. W. T. Ullrich of your staff by telephone on April 20, 1979. During this discussion, it was concluded that the inspection report contained no information that you considered proprietary; therefore a copy of this letter and its enclosures are being placed in the NRC's Public Document Room.

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,



Eldon J. Brunner, Chief  
Reactor Operations and Nuclear  
Support Branch

Enclosures:

1. Appendix A, Notice of Violation
2. Office of Inspection and Enforcement Combined Inspection  
Report Numbers 50-277/79-11 and 50-278/79-12

cc w/encls:

W. T. Ullrich, Station Superintendent  
Troy B. Conner, Jr., Esquire (Without Report)  
Eugene J. Bradley, Esquire (Without Report)  
Raymond L. Hovis, Esquire (Without Report)  
Warren Rich, Esquire (Without Report)

bcc w/encls:

IE Mail & Files (For Appropriate Distribution)  
Central Files  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
Technical Information Center (TIC)  
REG:I Reading Room  
Director, Region IV (Report Only)  
Commonwealth of Pennsylvania  
Troy B. Conner, Jr., Esquire  
Eugene J. Bradley, Esquire  
Raymond L. Hovis, Esquire  
Warren Rich, Esquire

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APPENDIX A  
NOTICE OF VIOLATION

Philadelphia Electric Company

Docket Nos. 50-277  
50-278

Based on the results of an NRC inspection conducted on April 9-13, 1979, it appears that certain of your activities were not conducted in full compliance with conditions of your NRC Facility License Nos. DPR-44 and DPR-56 as indicated below. Item A is an infraction and item B is a deficiency.

- A. Technical Specification 6.8.1 states, in part: "Written procedures and administrative policies shall be established, implemented, and maintained..."

Contrary to the above, the following examples of failure to follow plant procedures were identified.

1. Station Procedure S.3.2.A.1, Revision 4, dated May 15, 1978, provides a check-off list, S.3.2.A.1.A.2, for positioning the Residual Heat Removal System manual valves for operation.

On April 12, 1979, the Unit 2 RHR pressurizing to head spray header inner valve was found to be incorrectly positioned and not in accordance with check-off list S.3.2.A.1.A.2. No maintenance or operations affecting this valve was in progress.

2. Station Procedure S.3.2.A.1, Revision 4, dated May 15, 1978, provides a check-off list, S.3.2.A.1.A.2, for positioning the Residual Heat Removal System manual valves for operation.

On April 12, 1979, the Unit 2 RHR pressurizing to shutdown cooling suction header outer valve was found to be incorrectly positioned and not in accordance with check-off list S.3.2.A.1.A.2. No maintenance or operations affecting this valve was in progress.

3. Station Procedure S.8.4.A, Revision 3, dated July 13, 1977, provides a check-off list, S.8.4.A, for making the appropriate mechanical and electrical checks to set up the diesel generators locally for automatic operation.

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On April 12, 1979, two of seven valves required to be locked closed in accordance with S.8.4.A were found to be closed but not locked. No maintenance or operations affecting these valves was in progress.

This item is recurrent in that similar items of this nature concerning the Standby Liquid Control System were identified during Inspection No. 50-277/77-19, dated June 30, 1977; and Inspection Nos. 50-277/78-12 and 50-278/78-16, dated June 30, 1978.

Note: Inspection confirmed that the valves as listed above, were properly repositioned as required and secured (Item A-3).

- B. Technical Specification 6.8.3 states, in part: "Temporary changes to procedures... may be made, provided:
- b. The change is approved by two members of the plant management, at least one of whom holds a Senior Reactor Operator's license on the affected unit.
  - c. The change is documented, reviewed by the PORC, and approved by the Station Superintendent within 14 days of implementation."

Contrary to the above, on August 11, 1978, a temporary procedure change was made to Surveillance Test, ST 1.3, Revision 3, dated May 3, 1978, "PCIS Logic System Functional Test - Unit 3," without complete approval by two members of the plant management. Further, subsequent PORC review had not been accomplished as of April 13, 1979.

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

AS OF 20 APR 1979  
NOTICE  
REGION I HAS NOT OBTAINED PROPRIETARY  
EXEMPTION IN ACCORDANCE WITH 10 CFR 2790

Report No. 50-277/79-11  
50-278/79-12

Docket No. 50-277  
50-278

License No. DPR-44  
DPR-56

Priority --

Category C  
C

Licensee: Philadelphia Electric Company

2301 Market Street

Philadelphia, Pennsylvania 19101

Facility Name: Peach Bottom Atomic Power Station - Units 2 and 3

Inspection at: Delta, Pennsylvania

Inspection conducted: April 9-13, 1979

Inspectors: Edward A. Greenman  
E. G. Greenman, Reactor Inspector

4/19/79  
date signed

T. G. McNatt  
T. G. McNatt, Reactor Inspector

4-19-79  
date signed

P. D. Graham  
P. D. Graham, Reactor Inspector

4-19-79  
date signed

Approved by: E. C. McCabe, Jr.  
E. C. McCabe, Jr., Chief, Reactor Projects  
Section No. 2, RO&NS Branch

4/19/79  
date signed

Inspection Summary:

Inspection on April 9-13, 1979 (Combined Report Nos. 50-277/79-11 and 50-278/79-12)

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Areas Inspected: Special, announced inspection to review actions taken by Philadelphia Electric Company in response to the nuclear incident at Three Mile Island (TMI), to verify compliance with facility Technical Specifications and to assure that factors contributing to the incident at TMI do not exist at Peach Bottom. The inspection involved 57 hours onsite at Unit 2 and 57 hours onsite at Unit 1 and two regional based inspectors.

Results: Two items of noncompliance were identified: improper valve positioning and positive (infraction, Detail 2.c) and improper approach to surveillance test temporary procedural changes.

DUPLICATE DOCUMENT  
Entire document previously entered into system under:  
ANO 7905150523  
No. of pages: 26