

October 24, 1994

DES

Docket Nos: 50-277
50-278

Mr. D. M. Smith
Senior Vice President-Nuclear
PECO Energy Company
Nuclear Group Headquarters
Correspondence Control Desk
P. O. Box 195
Wayne, Pennsylvania 19087-0195

SUBJECT: PEACH BOTTOM VIOLATION RESPONSE 94-12

This refers to your October 7, 1994, correspondence in response to our letter, dated August 26, 1994 (Combined Inspection Report Nos. 94-12), regarding your Man-Operated Valve Program at Peach Bottom Atomic Power Station. We have reviewed this matter in accordance with NRC Inspection Manual Procedure 92902 - Maintenance.

We concur with your assessment of the root cause (namely, procedure quality) for the length of time taken to review the test results in question. We feel that a thorough and formal technical evaluation of post-work test data is important where design characteristics may be affected, particularly in the instances cited involving risk-significant valves. We consider the actions you have taken to be acceptable, and will further review the effectiveness of these actions in a future inspection.

We appreciate your responsiveness.

Sincerely,

Eugene M. Kelly, Chief
Systems Section
Division of Reactor Safety

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October 24, 1994

Mr. D. M. Smith

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bcc:

Region I Docket Room (with concurrences)

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PECO ENERGY

Gerald R. Rainey
Vice President
Peach Bottom Atomic Power Station

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October 7, 1994

Docket Nos. 50-277
50-278
License Nos. DPR-44
DPR-56

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Subject: Peach Bottom Atomic Power Station Units 2 & 3
Response to Notice of Violation (Combined Inspection Report No.
50-277/94-12 & 50-278/94-12)

Gentlemen:

In response to your letter dated August 26, 1994, which transmitted the Notice of Violation concerning the referenced inspection report, we submit the attached response. The subject report concerned a Motor-Operated Valve Inspection that was conducted July 25-29, 1994. A conversation was held between Eugene M. Kelly, NRC Chief - System Section, Division of Reactor Safety, and Ronald K. Smith, PBAPS-Experience Assessment Group on September 7, 1994, where it was determined that an oath or affirmation statement was not required for this response and on September 26, 1994, where an extension to the response due date was granted.

If you have any questions or desire additional information, do not hesitate to contact us.

Gerald R. Rainey
Vice President
Peach Bottom Atomic Power Station

Attachment

CCN #94-14158

94/10/20212

cc: R. A. Burricelli, Public Service Electric & Gas
R. R. Janati, Commonwealth of Pennsylvania
T. T. Martin, US NRC, Administrator, Region I
W. L. Schmidt, US NRC, Senior Resident Inspector
H. C. Schwemm, VP - Atlantic Electric
R. I. McLean, State of Maryland
A. F. Kirby III, DelMarVa Power

RESPONSE TO NOTICE OF VIOLATION

Restatement of Violation

Technical Specification 6.8.1.a requires, in part, that written procedures be implemented which meet the requirements of Sections 5.1 and 5.3 of American National Standard, ANSI N18.7-1972. ANSI N18.7-1972, Section 5.1.2, requires that procedures are followed, and Section 5.3.5(3) requires instructions for returning equipment to its normal operating status. PECO Procedure MG 25.2-2, "Conduct of Motor Operated Valve (MOV) Differential Pressure Testing and Data Analysis," Revision 0, dated February 11, 1993, Step 4.6.1 requires the completion of a preliminary functionality determination, using Attachment B to the procedure, before returning a MOV to service.

Contrary to the above, low pressure coolant injection (LPCI) valves MO-3-10-25A and MO-3-10-25B, residual heat removal (RHR) valve MO-2-10-34B, and high pressure coolant injection (HPCI) valve MO-3-23-16 were dynamically tested during the Fall 1993 refueling outage and returned to service, without the required preliminary functionality determinations. Approximately six months after these valves were returned to service, the Attachment B evaluations were completed.

This is a Severity Level IV Violation (Supplement I).

Reason for the Violation

During the 1993 Unit 3 Refuel Outage (3R09), eleven motor operated valve differential pressure (dp) tests were performed successfully. Per Maintenance Guideline (MG) 25.2-2, "Conduct of Motor Operated Valve (MOV) Differential Pressure Testing and Data Analysis," Revision 0, dated February 11, 1993, Step 4.6.1 states "After performance of the dynamic test, analyze the MOV differential pressure test data using Attachment B (MOV Differential Pressure Test Analysis). A preliminary functionality determination is required prior to returning the valve to service." Preliminary review of the test data began shortly after the completion of 3R09. Maintenance personnel stroked the valves and reviewed valve test data as part of this testing, but did not consider the completion of MG 25.2-2 Attachment B to be required before returning the valves to service. The preliminary functionality determination was considered to be met by a satisfactory valve stroke after testing. Since the completion of Attachment B was not considered to be a part of the preliminary functionality determinations it was not aggressively pursued.

It was also at this time that the Unit 3 low pressure coolant injection (LPCI) motor operated valve MO-3-10-025A was having operational difficulties. Resources were allocated to MO-3-10-025A issues and the review and evaluation of Attachment B test packages were delayed. This was a result of procedural inadequacy in MG 25.2-2 where a specified time for the review and evaluation of Attachment B test data was not clear. Since a time requirement was not clearly specified, a low priority was placed on the completion of Attachment B evaluations. Consequently, resources were diverted to higher priority work and were not allocated to support the review and analysis of Attachment B tests.

In May, 1994, following organizational changes in the Component Engineering Group, it was recognized that Attachment B test package reviews still had not been completed. The organizational changes that occurred in Component Engineering reduced the number of personnel with the experience and ability in the group to perform the Attachment B evaluations. As a result, Component Engineering sent the test packages to an outside vendor for analysis and review. The test packages were returned approximately three weeks later, but due to high work activity in Component Engineering, a low priority was placed on the analysis of Attachment B packages and they continued to remain unreviewed by PECO Energy personnel.

During review of MO-3-10-025A test data in June 1994, it was discovered that an earlier review of dp test data could have provided added insight into the investigation of the valve failure during 3RO9. A Performance Enhancement Program (PEP) issue was initiated on June 27, 1994, to investigate the potential effects of untimely data review for this valve and other similar valves.

On July 5, 1994 a team of qualified personnel from Chesterbrook Nuclear Headquarters, Limerick Generating Station and Peach Bottom met to review the results of the dp test packages. Several procedural and process deficiencies were also identified at this time that further delayed the review of Attachment B test packages. On July 14, 1994, Attachment B evaluations were completed for the appropriate valves.

The Corrective Steps That Have Been Taken and the Results Achieved

A PEP issue was initiated June 27, 1994, to evaluate the late review of MOV test data and incorporation of data back into the MOV Program. This evaluation resulted in identification of causal factors for this event and the revision of MG 25.2-2.

MG 25.2-2 was revised to provide clear guidance on preliminary operability determinations. The acceptance criteria for this determination is now based on successful open and close valve stroke criteria. If the criteria is met, a calculation for a new valve factor is performed. New minimum thrust requirements are then calculated using this valve factor. The new thrust requirements are then used as preliminary operability acceptance criteria. If the preliminary operability determination criteria is not satisfied, the procedure requires supervision and Component Engineering be contacted for guidance. The procedure was also revised to provide time requirements for the review and completion of dynamic test acceptance criteria and the documentation package. The procedure requires that after dynamic test performance, the MOV test data be reviewed by Maintenance within one week of test completion. The completed guideline is then forwarded to Component Engineering for independent review. The dynamic test documentation package is then to be completed by Component Engineering within one month after the dynamic test has been performed and made available to Nuclear Engineering Division to document and further evaluate dynamic test data.

Component Engineering skills for dynamic test reviews have been increased as a result of on the job training and assistance from experienced PECO Energy and vendor personnel. In addition, the periodic meetings with Peach Bottom, Limerick and Chesterbrook personnel that were originally initiated July 5, 1994, continue to provide valuable information and insight into the proper testing and evaluation of motor operated valves.

The Corrective Steps that Will Be Taken to Avoid Further Violations

The corrective steps taken will serve to avoid further violations.

Date When Full Compliance Was Achieved

Full compliance was achieved July 14, 1994, when MG 25.2-2 Attachment B evaluations were properly reviewed and completed by PECO Energy personnel.