

PECO Energy Company 965 Chesterbrook Boulevard Wayne, PA 19087-5691

November 11, 1999

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 and 3 Corrections to the Response to the Request for Additional Information Concerning Relief Requests Associated with the Third, 10-Year Interval

Inservice Interval (ISI) Program

References: 1) Letter from J. Doering, Jr. (PECO Energy Company (PECO Energy)) to U. S. Nuclear Regulatory Commission (USNRC), dated August 13, 1998

- 2) Letter from B. C. Buckley (USNRC) to J. A. Hutton (PECO Energy), dated August 20, 1999
- 3) Letter from J. A. Hutton (PECO Energy) to USNRC, dated October 8, 1999

#### Dear Sir/Madam:

In the Reference 1 letter, PECO Energy Company (PECO Energy) submitted for your review and approval proposed alternatives associated with the third, ten-year-interval, Inservice Inspection (ISI) Program for the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The second, ten-year-interval concluded for PBAPS, Units 2 and 3 on November 4, 1998, and August 14, 1998, respectively. In the Reference 2 letter, the U. S. Nuclear Regulatory Commission (USNRC) requested additional information. In the Reference 3 letter, a response was provided to your request.

In our revised Relief Request (RR) 17 contained in the Reference 3 letter, we stated that "the code-required examinations of the support system (hangers and integral attachments) provide an examination of the integral attachment welds on the MSRV discharge lines. Additionally, because the surface examination of the weld extends ½

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inch beyond the weld onto the surface of the MSRV discharge pipe, a sample surface examination (dye penetrant or magnetic particle) is performed on the surface of the MSRV discharge pipe." The purpose of this letter is to inform you that this statement is incorrect in that no sample surface examination (dye penetrant or magnetic particle) is required by the code or performed on the surface of the MSRV discharge pipe. Accordingly, the relief request has been revised and is attached. The revision is identified by a revision bar in the margin. This revision does not impact the conclusions necessary to demonstrate compliance with 10CFR50.55a(a)(3)(ii) regarding this relief request. PECO Energy has placed this error issue in its corrective action program for further investigation.

If you have any questions, please contact us.

Very truly yours,

A. Hutton

Director - Licensing

Attachment

CC:

H. J. Miller, Administrator, Region I, USNRC

A. C. McMurtray, USNRC Senior Resident Inspector, PBAPS Idaho National Engineering and Environmental Laboratory

bcc: Manager, Financial Controls and Co-owner Affairs, Public Service Electric & Gas

R. I. McLean, State of Maryland

A. F. Kirby, III, Delmarva Power & Light Company

R. R. Janati, Commonwealth of Pennsylvania

G. R. Rainey - 63C-3

C. P Lewis - 63C-3

J. J. Hagan - 62C-3

J. Doering - PB, SMB4-9

M. E. Warner - PB, A4-1S

G. L. Johnston - PB, SMB3-2A

E. F. Sproat - 63B-1

R. W. Boyce - 63C-3

R. A. Kankus - 63C-2

A. A. Winter - PB, A4-5S

J. G. Hufnagel/TRL - 62A-1

PBAPS ISEG - PB, SMB4-6

Commitment Coordinator - 62A-1

Correspondence Control Desk - 61B-5

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R. E. Simpson - PB, SMB3-6

J. M. Cockroft - PB, SMB3-6

M. Hammond - PB, SMB3-6

C. K. Geiger - PB, SMB3-6

R. E. Ciemiewicz - 63B-3

T. C. Hinkle - LGS, JSK4-1

A. R. Piha - PB, SMB3-6

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## **COMPONENT IDENTIFICATION**

Code Class:

3

References:

Table IWB-2500-1,

IWD-5223(f),

Code Case N-498-1

**Examination Category:** 

D-B

Item Number:

D2.10

Description:

Alternative Testing for Main Steam Relief Valve

**Discharge Piping** 

Component Numbers:

All Main Steam Relief Valve Discharge Piping (11

Lines per Unit)

### CODE REQUIREMENT

ASME, Section XI, 1989 Edition, Subparagraph IWD-5223(f), states that, "For safety or relief valve piping which discharges into the containment pressure suppression pool, a pneumatic test (at a pressure of 90% of the pipe submergence head of water) that demonstrates leakage integrity shall be performed in lieu of system hydrostatic test."

Code Case N-498-1 states that a system pressure test, as described therein, may be conducted in lieu of the 10-year system hydrostatic test.

## **BASIS FOR ALTERNATIVE**

Pursuant to 10CFR50.55a(a)(3)(ii), an alternative is requested on the basis that compliance with Section XI requirements would result in hardship without a compensating increase in the levels of quality and safety.

The application of Code Case N-498-1 provides an alternative to the performance of the 10-year system hydrostatic pressure test, and thereby eliminates the need to invoke subparagraph IWD-5223(f) of ASME, Section XI. Code Case 498-1 allows substitution of a system leakage test for the hydrostatic test. Paragraph IWC-5221 of the Code allows the test pressure to be the nominal operating pressure during system operation. This pressure is (nominally) the atmospheric pressure in the containment. Examination during main steam and containment system operation (with containment pressurized) would need to be in an inert atmosphere. None of the lines would be pressurized, unless a relief valve had opened. Examination during the Class 1 test would also require access to the torus and vents. These are areas that are isolated and normally not accessible to personnel during the Class 1 pressure test. Therefore, performance of this test would represent a considerable safety hazard to personnel, and would not be practical.

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## BASIS FOR ALTERNATIVE (con't)

Additionally, PECO Energy, in the effort to comply with the Code requirements, has considered using the criteria presented in IWD-5223(f) for guidance. In order to pressure test all lines, the installation of pressure taps would be required on some of the lines. This would require cutting into the pressure boundary and attaching, by welding, new access points for the introduction of pressurized fluid into the lines. This work would be required inside the Containment structure during a refuel outage. Personnel would receive a radiation dose proportionate to their length of time spent in the work area. Implementing modifications to allow the performance of this testing would result in undue hardship without a compensating increase in safety. PECO Energy has determined that any pressure testing method would represent a hardship without a compensating increase in the levels of quality and safety.

The performance of a low-pressure test or an in-service test in compliance with the Section XI Code and Code Case would not be of a sufficient pressure to adequately test the structural integrity of the MSRV discharge piping. The nominal pipe wall thickness ranges from 0.365 inch to 0.375 inch.

Additionally, the lines experience very little time in service, and are only in service during unplanned openings of the relief valves. Routine, Inservice Testing of the relief valves, by remotely operating the relief valves, has been discontinued as a revision to the PBAPS Inservice Test Program. Thus, the actual time that the line is expected to be in service has been lessened even further. There is very little time during which the piping is in service. The minimal in-service time does not warrant the performance of routine testing due to the passive nature of the pipe.

These lines are located in a non-harsh environment. The outside diameter of the pipe is in nitrogen atmosphere during plant operation. During shut-downs, it is in ambient atmosphere suitable for personnel access. The inside of the pipe is subject to infrequent pressurization and contact with reactor coolant in the event of an unplanned relief valve discharge. The coolant is high quality steam from demineralized water. The inside of the pipe is not exposed to standing water. Any low level leakage past the valve will not lay stagnant in the lines because they are sloped away from the valve to the suppression chamber.

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## **BASIS FOR ALTERNATIVE** (con't)

During a relief valve blow-down, the support system (hangers and integral attachments) applies significant stresses to the pipe. These stresses occur immediately following the opening of the relief valve. The stresses are included in the qualification of the piping system. The examinations of the support system (hangers and integral attachments) are not affected by this relief request and are performed as described in the ISI Program and ASME XI requirements.

Therefore, performance of a plant modification and performance of the pressure testing of the Main Steam Relief Valve discharge lines represents a hardship with no compensating increase in plant safety.

The code-required examinations of the support system (hangers and integral attachments) includes a visual examination of the integral attachments on the MSRV discharge lines. Additionally, while the examiners are performing these examinations, they observe the piping and are obligated by plant procedures to report any additional observed abnormal conditions.

## PROPOSED ALTERNATIVE EXAMINATION

Perform the code-required Category D-A integral attachment examinations and the code-required F-A support examinations for the MSRV discharge pipes, as described in the PBAPS ISI Program.

### APPLICABLE TIME PERIOD

Relief is requested for the third, ten-year interval of the Peach Bottom Atomic Power Station Inservice Inspection Program, beginning November 5, 1998, for Unit 2, and August 15, 1998, for Unit 3.