

PRIORITY ATTENTION REQUIRED MORNING REPORT - REGION I OCTOBER 5, 1993

Licensee/Facility:

Notification:

Philadelphia Electric Co.
Peach Bottom 2 3
Philadelphia, Pennsylvania

MR Number: 1-93-0099
Date: 10/04/93
SRI PC

Dockets: 50-277,50-278
BWR/GE-4,BWR/GE-4

Subject: CRACKING OF WALWORTH VALVE YOKES

Reportable Event Number: N/A

Discussion:

As of 8:00 a.m. on October 4, both units are in cold shutdown. Unit 3 is in the process of refueling and Unit 2 was shutdown on October 2 to allow inspections of valve yokes which were inaccessible during operation.

Between September 27 and 30, PECO identified cracks in the yokes of several Walworth "pressure seal" valves at Unit 3 and one at Unit 2. On October 1, PECO identified additional yoke cracks on accessible valves at Unit 2 and initiated a unit shutdown.

The cracks have been observed in the cast yoke assembly, migrating from the ends of the yoke struts into the operator mounting plate. Operators initially observed the cracking while viewing operation of core spray system valve MO-3-14-11B (12" remote blocking valve) during a surveillance test. Inspection of the corresponding valve at Unit 2 identified similar cracks, necessitating entry into a B core spray system

LCO to allow repairs. Subsequently PECO inspected all the Walworth "pressure seal" valves in safety related applications at Unit 3. Cracked yokes were found on MO-3-10-17 (residual heat removal 20" shutdown cooling outboard PCIV), 3-MO-14-11A (core spray 12" remote blocking valve), and MO-3-23-19 (high pressure coolant injection 12" inboard injection PCIV).

At Unit 2, PECO identified additional crack indications on MO-2-13-15 and MO-2-13-131 (reactor core isolation cooling 3" inboard steam supply PCIV and the 4" turbine steam admission valve), MO-2-10-25B and MO-2-10-17 (residual heat removal 24" outboard injection PCIV and 20" shutdown cooling outboard PCIV), and MO-2-23-25 (high pressure coolant injection 4" minimum flow recirculation valve).

Repair activities have included weld repairs following grinding to remove the crack indications. PECO continues to investigate the cause of the cracking and has been in contact with the Crane Valve Company (who now owns Walworth). Initial engineering evaluation indicated that for yokes designed with the operator to yoke bolts outside the yoke struts, improper torquing of the bolts could cause the yoke plate to deflect during operation, causing stress in the areas where the cracking was observed. PECO was also reviewing the history of these valve to determine if the valve operators were placing or had ever placed these valves in an over-thrust condition. PECO is evaluating 10 CFR Part 21 reportability .

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MR Number: 1-93-0099 (cont.)

Regional Action:

The resident and Regional staffs are monitoring licensee activities.

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PRIORITY ATTENTION REQUIRED MORNING REPORT - REGION I OCTOBER 7, 1993

Licensee/Facility:	Notification:
Philadelphia Electric Co.	MR Number: 1-93-0100
Peach Bottom 2 3	Date: 10/07/93
Philadelphia, Pennsylvania	SRI PC

Dockets: 50-277, 50-278
BWR/GE-4, BWR/GE-4

Subject: CRACKING FOUND ON PEACH BOTTOM UNIT 3 CORE SHROUD

Reportable Event Number: N/A

Discussion:

Between October 2 and 3, 1993, and while in its ninth refueling outage, PECO identified two cracks in the Peach Bottom Unit 3 core shroud. PECO inspected three of eight locations on the shroud as part of a weld inspection prompted by the shroud cracking problems identified at the Brunswick facility. The cracks were found at two locations along a single weld (H-4) between the top guide support ring and core plate support ring which is located in the "heat effected zone" of the shroud. The welds

along the top guide support ring (H-3) were also inspected at the time with no flaws indicated. The cracks run axially and circumferentially, with the longest crack measuring about 10 inches in length. Crack depth is unknown. PECO has expanded the scope of their weld inspection to include a complete inspection of the H-4 and H-3 welds and a sample of other related welds. The data collected will determine PECO's corrective actions.

Some differences between Peach Bottom's (PB's) shroud versus Brunswick's include: PB's manufactured in Holland vice the United States; PB's support rings are forgings vice welded plate support rings; and the shroud area between the top guide and core plate at PB has one weld (H-4) vice two welds at Brunswick (H-4 and H-5).

PECO is performing a flaw analysis for the shroud to determine the critical crack size and is aggressively working with General Electric to determine the extent of further investigation and corrective actions.

Peach Bottom Unit 2 is presently shut down for the resolution of valve yoke cracking problems identified last week (reference MR 1-93-0099). Unit 2 will remain shut down pending PECO's analysis of the generic implications of the Unit 3 shroud cracks.

Regional Action:

The resident and Regional staffs are monitoring licensee activities.

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