



PEACH BOTTOM—THE POWER OF EXCELLENCE

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION

R. D. 1, Box 208

Delta, Pennsylvania 17314

(717) 456-7014

March 23, 1991

Docket No. 50-278

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

SUBJECT: Licensee Event Report
Peach Bottom Atomic Power Station - Unit 3

This LER concerns the High Pressure Coolant Injection System being declared inoperable due to an inadequate procedure.

Reference:	Docket No. 50-278
Report Number:	3-91-003
Revision Number:	00
Event Date:	02/25/91
Report Date:	03/23/91
Facility:	Peach Bottom Atomic Power Station RD 1, Box 208, Delta, PA 17314

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(V).

Sincerely,

cc: J. J. Lyash, USNRC Senior Resident Inspector
T. T. Martin, USNRC, Region I

bcc: R. A. Burricelli, Public Service Electric - Gas
Commitment Coordinator
Correspondence Control Program
T. M. Gerusky, Commonwealth of Pennsylvania
INPD Records Center
R. I. McLean, State of Maryland
C. A. McNeill, Jr. - S26-1, PECO President and COO
D. B. Miller, Jr. - SM0-1, Vice President - PBAPS
Nuclear Records - PBAPS
H. C. Schwemm, VP - Atlantic Electric
J. Urban, Delmarva Power

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 3										DOCKET NUMBER (2) 0 5 0 0 0 2 7 8										PAGE (3) 1 OF 3																															
TITLE (4) High Pressure Coolant Injection System Being Declared Inoperable Due To An Inadequate Procedure																																																			
EVENT DATE (5)						LER NUMBER (6)						REPORT DATE (7)						OTHER FACILITIES INVOLVED (8)																																	
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OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)																																																	
N		20.402(b)										20.405(e)										50.73(a)(2)(iv)										73.71(b)																			
POWER LEVEL (10)		1 0 0										20.406(a)(1)(i)										50.38(e)(1)										X 50.73(a)(2)(iv)										73.71(c)									
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LICENSEE CONTACT FOR THIS LER (12)																																																			
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A. A. Fulvio, Regulatory Engineer										AREA CODE																																									
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																																			
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SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)																																									
YES (If yes, complete EXPECTED SUBMISSION DATE)										X NO																																									
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ABSTRACT (Limit to 1400 spaces - i.e., approximately fifteen single space typewritten lines) (16)

On 2/25/91 at 1930 hours during the performance of a High Pressure Coolant Injection (HPCI) System surveillance test, HPCI was declared inoperable when the spring tension on the manual and overspeed trip tappet was found to be less than what is required. The tappet spring tension is checked weekly as a result of a previous failure in which the manual and overspeed trip tappet assembly spring did not have adequate spring tension to maintain the tappet in the reset position. The cause of the event is procedure inadequacy. The problem, which was identified in a previous LER, is that the spring tension force may not be enough to reset the tappet. The corrective actions taken only measured the spring tension and indicated a point at which HPCI was to be declared inoperable. The procedure did not provide a point at which the spring should be adjusted prior to reaching the inoperable state. No actual safety consequences occurred as a result of this event. The weekly surveillance has been revised to require that the spring tension be adjusted prior to a point requiring HPCI to be declared inoperable. A new design, to replace the tappet assembly, is installed on Unit 2 and will be installed on Unit 3 during the the upcoming refuel outage. One previous similar LER was identified.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Peach Bottom Atomic Power Station Unit 3	DOCKET NUMBER (2) 0 5 0 0 0 2 7 8 9 1	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 368A's) (17)

Requirements for the Report

This report is being submitted to satisfy the requirements of 10 CFR 50.73(a)(2)(v) describing conditions that alone could have prevented the fulfillment of a safety function.

Unit Conditions at Time of Discovery

Unit 3 was in the RUN Mode at 100% of rated thermal reactor (EIIS:EA) power. There were no other systems, structures, or components that were inoperable that contributed to the event.

Description of Event

On 2/25/91 at 1930 hours during the performance of a High Pressure Coolant Injection (HPCI) System (EIIS:BJ) surveillance test (ST)-6.5.1, "Auxiliary Oil Pump Run", HPCI was declared inoperable when the spring tension of the HPCI manual and overspeed trip tappet was found to be less than what is required. The appropriate testing was initiated. The NRC was notified of the event via ENS at 2130 hours.

The tappet spring tension is checked weekly as a result of a previous failure in which the manual and overspeed trip tappet assembly spring did not have adequate spring tension to maintain the tappet in the reset position. The spring tension was adjusted. The tappet assembly was then tested to ensure proper tappet lifting tension and proper auto reset time. The HPCI system was then tested and returned to an operable status on 2135 hours.

Cause of the Event

The cause of the event was procedure inadequacy. The problem, which was identified in LER 3-90-010, is believed to be that the spring tension force may not be enough to reset the tappet. This could be attributed to the tappet swelling, which changes its clearances. As the tappet assembly diameter increases with swelling, the design leakage decreases, causing the area under the piston to pressurize. This will lift the tappet assembly enough to simulate a trip whenever the Auxiliary Oil Pump is running. This swelling is an industry-wide problem as described in General Electric Company (GE) RICSIL 04, RICSIL 37, SIL 392, and NRC Information Notice 88-067.

Although the problem was identified in a previous LER, the corrective actions taken only measured the spring tension and indicated a point at which HPCI was to be declared inoperable. The procedure did not provide a point at which the spring should be adjusted prior to reaching the inoperable state.

Analysis of Event

No actual safety consequences occurred as a result of this event. If an event would have occurred, the Reactor Core Isolation Cooling (RCIC) System (EIIS:BN) and the Automatic Depressurization System (ADS) were available and operable to provide core cooling and, if required, reduce reactor pressure to allow the Low Pressure Injection System to initiate.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/86

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Corrective Actions

The weekly surveillance has been revised to require that the spring tension be adjusted prior to a point requiring HPCI to be declared inoperable.

A new design, to replace the existing tappet assembly, has been provided by GE and is installed on Unit 2. The new design will be installed on Unit 3 during the upcoming refuel outage.

Previous Similar Event

One previous similar LER (3-90-010) associated with this type failure has been identified at PBAPS. The corrective actions in LER 3-90-010 would not have prevented this event as discussed in the cause section of this LER.