



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

December 19, 1990

Docket No. 50-277

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

SUBJECT: Licensee Event Report  
Peach Bottom Atomic Power Station - Unit 2

| This revised LER is being submitted due to changes in corrective actions  
| taken in response to this event. The LER concerns a violation of Technical  
| Specifications because of a missed surveillance due to a personnel error.

Reference: Docket No. 50-277  
Report Number: 2-90-008  
Revision Number: 01  
Event Date: 04/14/90  
Discovery Date: 4/17/90  
Report Date: 12/19/90  
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)(i)(B).

Sincerely,

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

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S PDR

bcc: R. A. Burricelli, Public Service Electric & Gas  
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Nuclear Records - PBAPS  
H. C. Schwemm, VP - Atlantic Electric  
J. Urban, Delmarva Power

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1): <b>Peach Bottom Atomic Power Station - Unit 2</b>	DOCKET NUMBER (2): <b>0 5 0 0 0 2 7 7 1</b>	PAGE (3): <b>1 OF 0 3</b>
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TITLE (4): **Technical Specification Violation Caused by Personnel Error Results in Missed Low Pressure Core Cooling System Surveillances**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	YEAR	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0	4	14	90	008	01	12	19	90		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9): <b>N</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check one or more of the following) (11)				
POWER LEVEL (10): <b>0 0 0</b>	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)	
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)	
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)		
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)		
	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 50.73(a)(2)(ix)		

LICENSEE CONTACT FOR THIS LER (12)

NAME: <b>A. A. Pulvio, Regulatory Engineer</b>	TELEPHONE NUMBER: AREA CODE: <b>7 1 7</b> NUMBER: <b>4 5 6 - 7 0 1 4</b>
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC/OS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC/OS

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15):	MONTH:    DAY:    YEAR:
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ABSTRACT (Limit to 1400 characters, i.e., approximately fifteen single spaced typewritten lines) (16)

On 4/17/90, 0850 hours, Operations personnel discovered that testing of Low Pressure Coolant Injection (LPCI) pumps and Core Spray subsystems was not performed as required by Technical Specification 4.5.A.4. This testing was required because the D LPCI pump was inoperable when the Unit 2 Reactor mode was changed from shutdown to refuel on 4/14/90, 2218 hours. On 4/17/90, 0950 hours, a shift permit applied to the D LPCI pump was cleared and the pump declared operable. The cause of this event was personnel error in not recognizing the inoperable status of the D LPCI pump when changing the reactor mode from shutdown to refuel. The D LPCI pump was declared inoperable due to a unique design condition on Unit 2. No actual safety consequences occurred as a result of this event. Appropriate Operations personnel were informed of this event. A Plant Operations Review Committee Position Technical Specification interpretation concerning the conditions under which LPCI must be operable was approved. There were no previous similar LERs.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Requirements for the Report

This report is required per 10 CFR 50.73(a)(2)(i)(B) because of a condition prohibited by Technical Specifications (Tech Specs).

Unit Status at Time of Discovery

Unit 2 was in the Refuel Mode

The 2D Residual Heat Removal (RHR) (EII:BO) pump (EII:P) was tagged-out as part of a shift permit (i.e. pump declared inoperable)

The 2C RHR pump was in service in the shutdown cooling (SDC) mode of RHR.

Description of Event

On 4/17/90, 0850 hours, Operations personnel discovered that testing of Low Pressure Coolant Injection (LPCI) pumps and Core Spray (EII:BM) subsystems were not performed as required by Tech Spec 4.5.A.4. Tech Spec 4.5.A.4 requires that with one LPCI pump inoperable, the remaining LPCI pumps and associated flowpaths and both core spray subsystems be demonstrated to be operable by testing within 24 hours and at least once every 72 hours thereafter until the LPCI pump is restored to an operable status. If this testing cannot be performed, Tech Spec 3.5.A.7 requires the initiation of an orderly shutdown and to be in the cold shutdown condition within 48 hours. This testing was required because the 2D RHR pump (i.e., LPCI pump) was inoperable when the Unit 2 Reactor (EII:RCT) mode was changed from shutdown to refuel on 4/14/90, 2218 hours. Previous to this time, Unit 2 had been in the cold shutdown condition and LPCI was not required to be operable. The 2D RHR pump was inoperable because of a unique design condition on Unit 2 which necessitates the 2D RHR pump to be declared inoperable and blocked from service whenever the 2A, 2B or 2C RHR pumps are used for SDC. This unique design condition exists because the minimum flow valve (EII:V) for the 2D RHR pump is a normally open valve to meet the requirements of 10 CFR 50 Appendix R. As a result, to prevent inadvertent Reactor drain down events during SDC operation, the minimum flow valve has to be closed (thereby rendering the 2D RHR pump inoperable).

On 4/17/90, 0950 hours, a shift permit applied to the 2D RHR pump was cleared and the pump was declared operable. The 2C RHR pump was secured from the SDC mode of operation prior to clearing the permit on the 2D RHR pump.

Analysis of the Event

No actual safety consequences occurred as a result of this event.

Subsequent testing proved that the other RHR pumps and the Core Spray System were operable during the time the mode switch was placed in refuel until the 2D RHR pump was declared operable. Because the other RHR pumps and Core Spray System were operable through this time, this equipment would be available to provide low pressure core cooling if needed.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Additionally, Tech Specs allow 7 days of continued reactor operation with 1 RHR pump inoperable. The 2D RHR pump was made operable within this 7 day Limiting Condition for Operation (i.e. 2D RHR pump was inoperable in the refuel mode for approximately 2 1/2 days).

Tech Spec 3.5.F.3 allows the LPCI system to be inoperable in the cold shutdown condition provided no work is being done which has the potential for draining the reactor vessel. Tech Spec 3.5.A.3 addresses the LPCI operability requirements for reactor startup. However, Tech Specs do not specify LPCI operability requirements for placing the mode switch in REFUEL. During the violation, there was no work being performed with the potential for draining the vessel, reactor coolant temperature was less than 212 degrees F, the vessel was vented to atmosphere and the mode switch was in REFUEL.

Cause of the Event

The cause of this event was personnel error in not recognizing the inoperable status of the 2D RHR pump when changing from the shutdown mode to the refuel mode of operation. General Plant Procedure GP-11C, "Reactor Protection System Refuel Mode Operation" requires that prior to changing the plant mode to REFUEL, LPCI be operable based on the historical interpretation that both loops of LPCI were required for moving the mode switch to REFUEL. This step was signed off as satisfactory by Operations personnel (Utility, Licensed).

Corrective Actions

The 2D RHR pump was returned to an operable status on 4/17/90, 0950 hours. Appropriate Operations personnel were informed of this event.

A Plant Operations Review Committee (PORC) Position (PP) interpretation of Technical Specifications was approved on 11/15/90. This PORC position states that the operability requirements of LPCI are to be determined by the operational condition rather than the position of the mode switch while the reactor is shutdown. Therefore, during conditions where there is no increase in probability of draining, pressurizing or heating the reactor vessel, the LPCI operability requirements are bounded by Tech Spec 3.5.F.3.

Therefore, if this PP interpretation existed at the time of this event, LPCI would not have been required to be operable per Tech Spec 3.5.F.3 since that Tech Spec allows LPCI to be inoperable in the cold shutdown condition provided no work is being done which has the potential for draining the reactor vessel. Previously, it had been assumed that LPCI operability requirements for going to the REFUEL mode were the same as for reactor startup.

Previous Similar Events

There have been no previous similar LERs caused by personnel error involving the non-performance of surveillance that are required as a result of a mode switch change.