



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 24, 1990

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 failure to record drywell sump pump readings as required by Tech Specifications due to a cognitive personnel error.

Reference: Docket No. 50-278  
Report Number: 3-90-015  
Revision Number: 00  
Event Date: 11/25/90  
Report Date: 12/24/90  
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)(1).

Sincerely,

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

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PDR ADOCK 05000278  
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bcc: R. A. Burriceili, Public Service Electric & Gas  
Commitment Coordinator  
Correspondence Control Program  
T. M. Gerusky, Commonwealth of Pennsylvania  
INPO Records Center  
R. I. McLean, State of Maryland  
C. A. McNeill, Jr. - S26-1, PECO President and COO  
D. B. Miller, Jr. - SMO-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 1 OF 0 3

TITLE (4) Failure to Record Drywell Sump Pump Readings as Required by Technical Specifications due to a Cognitive Personnel Error

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER (1)	
11	25	90	90	015	00	12	24	90		0 5 0 0 0	

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (1) (Check one or more of the following) (11)

OPERATING MODE (8)	20.402(b)	20.405(i)	30.73(a)(2)(iv)	33.71(b)
N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POWER LEVEL (10)	20.405(a)(1)(i)	30.38(c)(1)	30.73(a)(2)(v)	33.71(c)
0 4 0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	20.405(a)(1)(ii)	30.38(c)(2)	30.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 388A)
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	20.405(a)(1)(iii)	30.73(a)(2)(i)	30.73(a)(2)(vii)(A)	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	20.405(a)(1)(iv)	30.73(a)(2)(ii)	30.73(a)(2)(vii)(B)	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	20.405(a)(1)(v)	30.73(a)(2)(iii)	30.73(a)(2)(ix)	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

LICENSEE CONTACT FOR THIS LER (12)

NAME: A. A. Fulvio, Regulatory, Regulatory Engineer TELEPHONE NUMBER: 7 1 7 4 5 6 - 1 7 0 1 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15) MONTH: DAY: YEAR:

ABSTRACT (Limit to 1400 spaces, i.e. approximately 17 lines single space typewritten lines) (16)

On 11/25/90, during power ascension following a mid-cycle outage on Unit 3, two Reactor Operators (ROs) failed to record Drywell sump flow readings every 4 hours as required by Tech Spec 3.6.C. The cause of this event is personnel error. A primary causal factor of this event was poor human factors in that there is no method to prompt the RO to record these readings every 4 hours. During review and investigation of this event, it was identified that the Operators were not fully aware of the consequences involved with not recording the readings every 4 hours. Corrective actions include; routing the pertinent information from this LER to the appropriate Operations personnel, obtaining a timer to alarm every 4 hours prompting the RO to record the readings, and including the pertinent information from this LER in the Licensed Operator Requalification Training program. There were no safety consequences as a result of this event. 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   8   0   0   0   2   7   8	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9   0	—   0   1   5	—   0   0	0   2	OF	0   3

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

Requirements for the Report

This report is being submitted pursuant to 10 CFR 50.73 (a)(2)(i)(B) as a result of the required Technical Specification (Tech Spec) 4 hour Drywell sump flow readings not being recorded.

Unit Conditions at Time of Event (11/25/90)

Power ascension was in progress on Unit 3 following a mid-cycle outage. The mode switch was in the RUN position. Rated thermal power varied from 40% at the start of the event to 55.3% when the last 4 hour reading was missed.

Event Description

On 11/25/90, during power ascension following a mid-cycle outage on Unit 3, the day and afternoon shift Reactor Operators (RO)(Licensed, Utility) failed to record several Drywell sump flow readings as required by Tech Spec 3.6.C. Tech Spec surveillance requirement 4.6.C.1 states that "Reactor Coolant System leakage shall be determined by the Primary Containment (Drywell) sump collection and flow monitoring system and recorded every 4 hours or less".

The day shift RO missed the 0800 hours and 1200 hours Drywell sump readings for Surveillance Test (ST) 9.17-3, "Reactor Coolant Leakage Test", while performing power ascension activities which included placing a RFP in service, placing the condensate system in service, and pulling control rods. In addition, concurrent with the start-up, a core spray surveillance test was in progress and a blocking permit was being applied. While performing these other evolutions, the RO inadvertently missed the two 4 hour readings. During Shift Turnover, the RO realized that he missed the readings and informed the afternoon shift RO, but Shift Management (Utility, Licensed) was not informed. The day shift RO then calculated and obtained average flow readings for the times missed.

The afternoon shift RO also inadvertently missed the 2000 hours reading, while performing power ascension activities and Surveillance tests. When the RO noticed that he missed the 2000 hours reading, he also calculated the average flow for the time period missed and recorded the reading in the ST.

Event Cause

The cause of this event was determined to be personnel error. The day and afternoon shift RO failed to record the Drywell sump readings every 4 hours as required by ST 9.17-3 and Tech Spec 3.6.C.

A primary causal factor contributing to this event was determined to be poor human factors in that there is no method to prompt the control room RO to record the Drywell Sump readings every 4 hours.

In addition, during review and investigation of this event, it was determined that the control room ROs were not fully aware of the consequences involved with not recording the Drywell sump readings every 4 hours as required. The ROs thought that calculating the average flows was an acceptable method of obtaining the flow readings

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9 0	0 1 5	0 0	0 3	OF 0 3

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

when in fact it is not. When the ROs noticed that the readings were missed, Shift Management should have been immediately informed of the situation. The missed flow readings were identified as being potentially reportable by the Shift Technical Advisor (STA)(Utility, Non-Licensed) during his surveillance test review at the end of afternoon shift on 11/25/90.

Event Analysis

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

Monitoring the Drywell sump system provides early detection of Reactor Coolant System leakage. During the time that these readings were not monitored, the Drywell sump system operated as designed. These sump pumps operate automatically and are actuated by a level switch. Additionally, each sump has an alarm on increasing level. Therefore, sump pump abnormalities would have been brought to the attention of the unit operator.

A review of the chart recorder for the Drywell sumps in the main control room indicated that there was no increase in sump pump-out frequency or flow.

Corrective Actions

A timer will be obtained for both Unit 2 and Unit 3 which will alarm every 4 hours to prompt the Reactor Operator to record the Drywell Sump flow readings.

The pertinent information contained in this LER will be routed to the appropriate Operations personnel and included in the Licensed Operator Requalification Training program.

Previous Similar Events

LER 3-90-009 reported an event where the Reactor Operator failed to record the 'B' Recirc Loop temperature every 15 minutes as required by Tech Spec 4.6.A.1. Corrective actions to prevent recurrence of a failure to record the 15 minute readings were specific to procedural inadequacies related to the 15 minute readings and therefore could not have prevented this event.