



# PECO ENERGY

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

Docket Nos. 50-277 & 278

SUBJECT: Licensee Event Report, Peach Bottom Atomic Power Station  
Unit 2 & 3

This LER concerns an unplanned Engineered Safety Feature actuation during a fast transfer.

Reference:	Docket No. 50-277 & 278
Report Number:	2-95-006
Revision Number:	00
Event Date:	10/22/95
Report Date:	11/15/95
Facility:	Peach Bottom Atomic Power Station 1848 Lay Road, Delta, PA 17314

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

Sincerely,

GDE\GAJ:gaj

enclosure

- cc: R. A. Burricelli, Public Service Electric & Gas
- R. R. Janati, Commonwealth of Pennsylvania
- INPO Records Center
- T. T. Martin, US NRC, Administrator, Region I
- R. I. McLean, State of Maryland
- W. L. Schmidt, US NRC, Senior Resident Inspector
- A. F. Kirby III, DelMarVa Power
- H. C. Schwemm, VP - Atlantic Electric

CCN 95-14095  
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**LICENSEE EVENT REPORT (LER)**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530) U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) <b>Peach Bottom Atomic Power Station Units 2 &amp; 3</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 2 7 7</b>	PAGE (3) <b>1 OF 0 3</b>
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TITLE (4)  
**Group III Half Isolations on both units on a loss of one offsite power source**

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 NAMES	DOCKET NUMBER(S)
10	22	95	95	006	0	10	11	95	PBAPS Unit 3	0 5 0 0 0 2 7 1 8

OPERATING MODE (9) <b>N</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)																					
POWER LEVEL (10) <b>1100</b>	20.402(b)	20.405(a)(1)(i)	20.405(a)(1)(ii)	20.405(a)(1)(iii)	20.405(a)(1)(iv)	20.405(a)(1)(v)	20.406(c)	50.36(c)(1)	50.36(c)(2)	50.73(a)(2)(i)	50.73(a)(2)(ii)	50.73(a)(2)(iii)	50.73(a)(2)(iv)	50.73(a)(2)(v)	50.73(a)(2)(vi)	50.73(a)(2)(vii)	50.73(a)(2)(viii)(A)	50.73(a)(2)(viii)(B)	50.73(a)(2)(ix)	73.71(b)	73.71(c)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	<input checked="" type="checkbox"/>																					

LICENSEE CONTACT FOR THIS LER (12)

NAME <b>Antony J. Wasong, Manager-Experience Assessment</b>	TELEPHONE NUMBER <b>7 1 1 7 4 5 6 - 1 7 1 0 1 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 NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)
		MONTH DAY YEAR <b>0 3 0 1 9 1 6</b>

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

On 10/22/95, an offsite electrical power source (220-34) was lost. The four 4KV busses fed from this source automatically fast transferred to the other qualified offsite power source per system design. Transfer of the Startup circuits resulted in a Primary Containment Isolation System (PCIS) Group II half isolation on both units. The isolations occurred due to the momentary de-energization of several electrical distribution panels on each unit during the fast transfer. Following the event, the PCIS Group II isolation logics were reset and affected systems were restored to their normal configurations. In addition, another qualified offsite source (3SU) was aligned to replace the 220-34 line. The cause of the event was a momentary de-energization of several electrical distribution panels on each unit. This momentary de-energization occurred when an offsite electrical power source (220-34) was lost due to an electrical fault on the underground "B" phase cable located at the North Substation. The exact cause of the electrical fault has not yet been determined. The failed cable section has been sent to a independent test facility for failure analysis. A supplement to this LER will be submitted when the results of the failure analysis are received. Failure analysis is being performed on the failed cable section. Based of the results of the failure analysis, corrective actions will be implemented as appropriate. No previous similar events have been identified.

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20585, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Peach Bottom Atomic Power Station Units 2 & 3	DOCKET NUMBER (2) 0   5   0   0   0   2   7   7	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9   5	—   0   0   6	—   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 submitted to satisfy the requirements of 10 CFR 50.73(a)(2)(iv) because of unplanned Engineered Safety Feature Actuations.

Unit Conditions at Time of Event

Unit 2 and Unit 3 were in the RUN mode at 100% of rated thermal reactor (EIIS:RPV) power. There were no systems, structures, or components that were inoperable that contributed to the event.

Description of Event

On 10/22/95 at 1023 hours, an offsite electrical power source (220-34) was lost. The four 4KV busses fed from this source automatically fast transferred to the other qualified offsite power source per system design. Transfer of the Startup circuits resulted in a Primary Containment Isolation System (EIIS:JM)(PCIS) Group II half isolation on both units. The applicable Technical Specification (Tech Spec) Limiting Condition for Operation (LCO) for the loss of one qualified offsite power source was entered and the required Tech Spec actions were taken.

These half isolations caused the Drywell Sump Pump and Instrument Nitrogen isolation valves (EIIS:JM) to close. In addition, the Reactor Water Clean Up system (EIIS:CE) also isolated. The isolations occurred due to the momentary de-energization of several electrical distribution panels on each unit during the fast transfer. Appropriate actions were immediately taken to stabilize the units and the NRC was notified of the event.

Following the event, the PCIS Group II isolation logics were reset and affected systems were restored to their normal configurations. In addition, another qualified offsite source (3SU) was aligned to replace the 220-34 line, thus exiting the Tech Spec LCO.

Cause of Event

The cause of the event was a momentary de-energization of several electrical distribution panels on each unit. This momentary de-energization occurred when an offsite electrical power source (220-34) was lost due to an electrical fault on the underground 3" phase cable located at the North Substation.

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-830), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20585, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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

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

The exact cause of the electrical fault has not yet been determined. The failed cable section has been sent to a independent test facility for failure analysis. A supplement to this LER will be submitted when the results of the failure analysis are received.

Analysis of Event

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

All automatic PCIS isolations functioned as designed. The Station has three qualified offsite power sources which feed two independent electrical circuits to the emergency 4KV buses. The third qualified offsite power source was recently added as part of a modification to enhance overall reliability. Because of this enhancement, the third qualified offsite source was quickly aligned to restore power to the de-energized electrical circuit to the 4KV buses. However, had a complete loss of all qualified offsite power sources occurred, the Standby Emergency Diesel Generators were operable and available to provided backup electrical power to the emergency 4KV buses and safely control the plant.

Corrective Action

Following the event, the PCIS Group II isolation logics were reset and affected systems were restored to their normal configurations. In addition, the failed section of the cable was removed and a new splice was installed.

This type of cable is not used at any other locations at PBAPS. The other cables on this phase and the cables on the other phases have been inspected and were found to be satisfactory.

Failure analysis is being performed on the failed cable section. Based of the results of the failure analysis, corrective actions will be implemented as appropriate.

Previous Similar Events

No previous similar events have been identified which involved electrical underground cable faults on the offsite electrical power sources.