NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Peach Bottom Atomic Power Station - Unit 3	0 5 0 0 0 2 7 8	1 OF 0 1 4

TITLE (4) Partial Group II Outboard Isolation of Primary Containment Isolation System Due to a Fuse Failure

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)
0 7	1 2	8 8	8 8	- 0 0 7	- 0 0	0 8	1 1	8 8		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 1 0	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
W. C. Birely, Senior Engineer - Licensing Section	AREA CODE 2 1 5 8 4 1 - 5 0 1 4 8

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)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

Abstract: 3-88-07

On July 12, 1988 at 1050 hours, with Unit 2 in Cold Shutdown and Unit 3 in the Refuel Mode with the core offloaded, a partial Group II isolation of the Primary Containment Isolation System occurred on Unit 3 as the result of an accidental grounding of a fuse which supplies power to the following isolation valves: the Drywell Outboard Instrument Nitrogen, Torus Instrument Nitrogen, Drywell Floor Drain and Drywell Equipment Drain sump outboard isolation valves. As designed, the loss of power caused closure of the valves and a loss of position indication. The following valves which also received isolation signals were initially in the closed position: Main Steam Line Drain, Traversing Incore Probe, and Torus Water Filter Suction valves. There were no adverse consequences as a result of this event, since the isolated systems were not needed for the duration of the event. The root cause for the fuse failure in Panel 30C42 was personnel error. An electrician was placing labels on the inside of a control room panel when he accidentally grounded a lead to a light socket. As corrective actions, the fuse was replaced and the isolation reset. As an action to prevent recurrence, the labeling will be performed with the indicating lights in the panel electrically de-energized. In addition, procedures will be revised to ensure that supervisors and personnel are aware of and sensitive to the consequences of working in the panels.

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

Unit Conditions Prior to the Event:

Unit 3 was in Cold Condition, the core offloaded, with the Mode Switch in "Refuel".

Description of the Event:

On July 12, 1988 at 1050 hours, a partial Group II isolation of the Primary Containment Isolation System (PCIS) occurred on Unit 3 as the result of a blown fuse (16A-F22) caused by an accidental grounding of the power supply circuit. Fuse 16-F22 is located in panel 30C42 in the cable spreading room. The Group II isolation valves that were in the open position and closed as designed by the isolation signal were: Drywell Outboard Instrument Nitrogen (AO-3969B), Torus Instrument Nitrogen (AO-3968), Drywell Floor Drain (AO-20-83) and Drywell Equipment Drain (AO-20-95) Valves. Position indication was also lost to these valves.

The following Group II isolation valves received an isolation signal when relays 16A-K57 and 16A-K18 de-energized: Main Steam Line Drain (MO-2-77), Traversing Incore Probe Valves, Torus Water Filter Suction (MO-14-71) and Drywell Floor Drain (AO-20-83). Since these valves were initially in the closed position, no movement occurred.

The alarms received in the Control Room were as follows:

"Group II/III Outboard Isolation Relays Not Reset"
"Drywell Sump Valves 94 and 95 Closed"
"Drywell Sump Valves A0-20-82 and A0-20-83 Closed"

Fuse 16A-F22 was replaced at 1100 hours. The partial Group II isolation of the Primary Containment Isolation System was reset in accordance with procedures GP-8.D and GP-8.D, C.O.L. at 1105 hours. The duration of the isolation was 15 minutes. This event concerns an unexpected Engineered Safety Features actuation, and is reportable under 50.73(a)(2)(iv).

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

Consequences of the Event:

There were no adverse consequences of this event which would have affected plant safety for reason described below. All isolation valves in the open position closed, as designed. If this event occurred during normal operation, the drywell sump would not have been able to be pumped out while the drywell floor drain (AO-20-83) and drywell equipment drain (AO-20-95) valves were in the isolation position. However, considering the gradual accumulation of water in the sump and the brief duration of the isolation, the delay in pump out capability would not jeopardize safety. Although the drywell outboard instrument nitrogen valve (AO-3969B) closed, the nitrogen supply was maintained through a redundant supply valve (AO-3969A). Therefore, because of the redundant supply capability and the short duration of the isolation, plant safety would not have been jeopardized. Isolation of the torus instrument nitrogen valve (AO-3968) would have no consequences, since this valve is used only during testing the torus vacuum breaker valve. Isolation of the main steam line drain valve (MO-2-77) would have no consequences, since this valve is normally closed and is not required to be open to perform a safety function. Isolation of the torus water filter suction valve would have no consequences, since this valve is normally closed and is only required to be opened to pump down torus water level. The traversing incore probes (TIPs) are normally withdrawn and TIP valves closed. Should the reactor engineer be running TIPs for data collection, the TIPs would have automatically withdrawn and isolation valves closed. This is a conservative action without any consequence.

Cause of the Event:

The root cause of the fuse (16A-F22) failure in control panel 30C42 was personnel error by an electrician working for the station construction group. The electrician was working in the Control Room placing labels at light sockets on the inside of Panel 30C003-01 when he accidentally grounded a lead to a light socket with a screw driver causing fuse 16A-F22 to fail. The electrician was using the screw driver to press the labels against the panel.

Corrective Actions:

As corrective action, fuse 16A-F22 was identified and replaced and the partial Group II isolation of the Primary Containment Isolation System was reset in accordance with procedure GP-8.D

and GP-8.D, C.O.L. at 1105 hours. The system was returned to service in 15 minutes. In addition, the electrician was counseled on the importance of using caution when working in control panels.

Actions Taken to Prevent Recurrence:

Due to the close physical proximity of the light sockets in Panel 30C003-1, the power to the light sockets will be blocked until labeling is complete inside the panel. The labeling work has been stopped until a permit is applied to block the indicating lights. In addition, procedures will be revised to ensure that work supervisors and craft personnel are aware of and sensitive to the potential consequences of working in critical panels. Procedures will also include requirements for on-scene reviews with supervisors and craft of work to be done and methods to be employed prior to work in critical panels. These procedures will be completed by October 15, 1988.

EIIS Codes:

FU - Fuse
PL - Panel
JM - Containment Isolation Control System
V - Valve
LK - Nitrogen Supply System
DRN - Drain
ALM - Alarm
RLY - Relay
P - Pump
VB - Reactor Drywell Environmental Control System
WK - Equipment and Floor Drain System
EJ - DC Power System - Class 1E

Previous Similar Occurrences:

There has been previous similar LERs 3-88-06, 2-87-25, 2-87-06 and 3-87-06 which address PCIS actuations as a result of fuse failures caused by inadvertent grounds.

Tracking Codes:

All - Failure to properly assess consequences of actions.

PHILADELPHIA ELECTRIC COMPANY

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PHILADELPHIA, PA. 19101

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August 11, 1988

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 a partial Group II outboard isolation of the Primary Containment Isolation System due to a fuse failure.

Reference:	Docket No. 50-278
Report Number:	3-88-07
Revision Number:	00
Event Date:	July 12, 1988
Report Date:	August 11, 1988
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)(iv).

Very truly yours,

E. P. Fogarty

E. P. Fogarty
Manager
Nuclear Support Division

cc: W. T. Russell, Administrator, Region I, USNRC
T. P. Johnson, USNRC Senior Resident Inspector
T. E. Magette, State of Maryland
INPO Records Center

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