CCN 91-14136

PHILADELPHIA ELECTRIC COMPANY
PEACH BOTTOM ATOMIC POWER STATION
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PEACH BOTTOM—THE POWER OF EXCELLENCE

August 26, 1991

Docket Nos. 50-277

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

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

This LER concerns Primary Containment Isolation System isolation due to a failure of the No. 3 Startup Feed disconnect.

Reference:	Docket Nos. 50-277
Report Number:	2-91-026
Revision Number:	00
Event Date:	7/27/91
Report Date:	8/26/91
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)(iv).

Sincerely,

Ken Powers

cc: J. J. Lyash, USNRC Senior Resident Inspector
T. T. Martin, USNRC, Region 1

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NRC Form 366
(5-92)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 5-31-95

LICENSEE EVENT REPORT (LER)

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

TITLE (4) Primary Containment Isolation System Isolation due to a Failure of the No. 3 Startup Feed Disconnect

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	2 7	9 1	9 1	- 0 2 6	- 0 0	0 8	2 6	9 1		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)	1 0 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
	AREA CODE
Albert A. Pulvio, Regulatory Engineer	7 1 7 4 5 6 - 7 0 1 4

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)

On 7/27/91 at 2100 hours, actuations occurred on the Unit 2 Primary Containment Isolation System (PCIS)(EIIS:JM) when the 4 KV Emergency Busses (EIIS:BU) associated with the No. 3 Startup Feed was dead bus transferred to the No. 2 Startup Feed. The PCIS logic momentarily de-energized during this fast transfer which resulted in one half PCIS Group 1, 2, and 3 isolations and a one half scram signal due to a Reactor Protection System (RPS) motor-generator set output breaker trip. The Emergency Busses were manually transferred when a failure of the No. 3 startup feed disconnect caused "B" phase arcing. The cause of the arcing is due to the disconnect not being fully closed by the operator due to mechanical binding and no existing operating procedure for the disconnects. The cause of the RPS Motor Generator (M/G) set trip has been determined to be the RPS M/G set supply breaker time delay relay timed out prior to the supply bus re-energization. System isolations were reset immediately following the event. The disconnect has been repaired and the 4 KV Emergency Busses have been returned to their normal Startup Emergency Feeds. A disconnect operating procedure will be generated. The design of the RPS M/G trip will be reviewed. No actual safety consequences occurred as a result of these events and there were no previous similar events identified.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Peach Bottom Atomic Power Station Unit 2	0 5 0 0 0 2 7 7	9 1	— 0 2 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 being submitted to satisfy the requirements of 10 CFR 50.73 (a)(2)(iv) due to automatic actuations of Engineered Safety Features.

Unit Conditions at Time of Discovery

Unit 2 was 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 7/27/91 at 2100 hours, actuations occurred on the Unit 2 Primary Containment Isolation System (PCIS)(EIIS:JM) when the 4 KV Emergency Busses (EIIS:BU) associated with the No. 3 Startup Feed were manually dead bus transferred to the No. 2 Startup Feed. The PCIS logic momentarily de-energized during this transfer which resulted in one half PCIS Group 1, 2, and 3 isolations. The Emergency Busses were manually transferred when a failure of the No. 3 Startup feed disconnect caused 'B' phase arcing. Additionally, a one half scram signal was received when the '2B' Reactor Protection System (RPS)(EIIS:JC) Motor-Generator (M/G) set output breaker (EIIS:BKR) tripped during the bus transfers. This caused the Standby Gas Treatment System (SBGT)(EIIS:BH) to initiate and the Reactor Building ventilation systems to trip.

Following this event, the 4 KV Emergency Busses were left aligned to the No. 3 Startup Feed and the isolations were reset. The ventilation systems were placed in service and the SBGT system was removed from service. Prompt notification was made to the NRC via the ENS at 2215 hours. The startup power supplies were restored to their normal lineup on 7/28/91 at 1825 hours and the disconnect has been repaired.

Cause of the Event

The event was initiated when the No. 3 Startup Feed disconnect was not fully closed which caused 'B' phase arcing. The failure was due to the disconnect not being fully closed by the Plant Operator (PO) (Utility: non licensed) during operation earlier that day. Contributing factors to this event are that closure of this disconnect was extremely difficult due to mechanical binding which lead the PO to believe that the disconnect was closed and that no specific disconnect operating procedure existed.

The cause of the RPS M/G set trip during the manual dead bus transfer has been determined to be the RPS M/G set supply breaker time delay relay timed out as designed prior to the supply bus re-energization.

Analysis of Event

No actual safety consequences occurred as a result of these events. In the unlikely event of complete failure of both Startup Emergency Feeds during a design basis event, emergency power would be provided from the Emergency Diesel Generators. Other isolations, initiations, and Startup Feed fast transfers functioned per design.

Corrective Actions

System isolations were reset immediately following the event and all affected systems were restored.

The event has been discussed with the involved individuals. The pertinent information from this event will be provided to the appropriate Operations Personnel.

A procedure which will provide detailed instructions for disconnect operation will be generated.

The disconnect has been repaired and the startup power supplies have been restored to their normal lineup.

The 2B M/G set output breakers were functionally checked after the event by the performance of a dead bus transfer. No further RPS M/G set output breaker trips occurred.

Engineering will evaluate a RPS M/G set time delay setpoint change which will allow the M/G set to continue operating for a longer time during dead bus transfers.

Previous Similar Events

There were no previous similar events concerning isolations as a result of RPS M/G set supply breaker trip initiated by a dead bus transfer because of failure of a disconnect to completely close.