

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3160-0104
EXPIRES - 6/30/85

FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 2		DOCKET NUMBER (2) 05000277	PAGE (3) 1 OF 04
-----------------------------------------------------------------	--	-------------------------------	---------------------

TITLE (4)
Auto-Scram Due to Loss of Power to 'A' RPS with SDV High Level

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)																																																												
03	18	86	86	009	00	04	16	86			05000																																																												
<table border="1"> <tr> <td colspan="2">OPERATING MODE (8)</td> <td>N</td> <td colspan="9">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)</td> </tr> <tr> <td colspan="2">POWER LEVEL (10)</td> <td>0.00</td> <td>20.402(a)</td> <td>20.406(a)</td> <td>X</td> <td>80.73(a)(2)(iv)</td> <td>73.71(b)</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>20.406(a)(1)(ii)</td> <td>80.36(a)(1)</td> <td></td> <td>80.73(a)(2)(v)</td> <td>73.71(c)</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>20.406(a)(1)(iv)</td> <td>80.36(a)(2)</td> <td></td> <td>80.73(a)(2)(vi)</td> <td>OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>20.406(a)(1)(iii)</td> <td>80.73(a)(2)(i)</td> <td></td> <td>80.73(a)(2)(vii)(A)</td> <td></td> </tr> <tr> <td colspan="2"></td> <td></td> <td>20.406(a)(1)(v)</td> <td>80.73(a)(2)(ii)</td> <td></td> <td>80.73(a)(2)(vii)(B)</td> <td></td> </tr> <tr> <td colspan="2"></td> <td></td> <td>20.406(a)(1)(vi)</td> <td>80.73(a)(2)(iii)</td> <td></td> <td>80.73(a)(2)(ix)</td> <td></td> </tr> </table>												OPERATING MODE (8)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)									POWER LEVEL (10)		0.00	20.402(a)	20.406(a)	X	80.73(a)(2)(iv)	73.71(b)				20.406(a)(1)(ii)	80.36(a)(1)		80.73(a)(2)(v)	73.71(c)				20.406(a)(1)(iv)	80.36(a)(2)		80.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)				20.406(a)(1)(iii)	80.73(a)(2)(i)		80.73(a)(2)(vii)(A)					20.406(a)(1)(v)	80.73(a)(2)(ii)		80.73(a)(2)(vii)(B)					20.406(a)(1)(vi)	80.73(a)(2)(iii)		80.73(a)(2)(ix)	
OPERATING MODE (8)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																																																																				
POWER LEVEL (10)		0.00	20.402(a)	20.406(a)	X	80.73(a)(2)(iv)	73.71(b)																																																																
			20.406(a)(1)(ii)	80.36(a)(1)		80.73(a)(2)(v)	73.71(c)																																																																
			20.406(a)(1)(iv)	80.36(a)(2)		80.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)																																																																
			20.406(a)(1)(iii)	80.73(a)(2)(i)		80.73(a)(2)(vii)(A)																																																																	
			20.406(a)(1)(v)	80.73(a)(2)(ii)		80.73(a)(2)(vii)(B)																																																																	
			20.406(a)(1)(vi)	80.73(a)(2)(iii)		80.73(a)(2)(ix)																																																																	

LICENSEE CONTACT FOR THIS LER (12)

NAME		TELEPHONE NUMBER	
W. C. Birely, Senior Engineer, Licensing Section		215 841-5048	

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (if you complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

Abstract: 2-86-09

On March 18, 1986, at 0837 hours with the reactor in Shutdown Mode at 0 percent power, while operators were aligning equipment to support surveillance tests by instrument and control technicians, the Reactor Protection System (RPS) initiated a full reactor scram signal. This scram signal occurred while the operators were transferring the 'A' RPS bus power supply from the motor-generator (M/G) to the alternate power supply (E-124) for performance of a surveillance test. Switching to the alternate feed caused a momentary power loss to the 2A RPS logic which resulted in de-energization of the Scram Discharge Volume (SDV) high water level bypass relays. Loss of power to these relays, in conjunction with SDV high water level, resulted in generation of the scram signal.

8604230166 860416
PDR ADOCK 05000277
S PDR

1622
/1

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 8 6	LER NUMBER (5)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
					0 2	OF 0 4

TEXT (if more space is required, use additional NRC Form 366a (17))

Unit Conditions Prior to the Event

Unit 2 was in Cold Shutdown at 0 percent power.

Description of the Event:

On March 18, 1986, with unit in Shutdown Mode, while operators were aligning equipment to support surveillance testing on "Calibration Check of the 2A RPS M/G Set Relay" (ST 2.25.25A) by the instrument and control technicians, the Reactor Protection System (RPS) initiated a full reactor scram signal.

As the operator was transferring RPS bus feeds from M/G set to alternate feed for ST 2.25.25A, there was a momentary loss of power to the RPS 2A logic. Prior to this transfer, the Scram Discharge Volume (SDV) high water level trip signal was bypassed. This was accomplished by placing the switch in the "bypass" position. By design, power must be available to both the 'A' and 'B' RPS logic relays to enable the SDV bypass feature to function.

At the time of scram, the water level of the SDV was "HIGH" and at the moment the transfer was made to the alternate feed, the bypass relays for the RPS 'A' logic were de-energized eliminating the bypass of the SDV high water level scram signal. No control rod movement occurred because all rods were fully inserted.

The EIIS code for this system is JC.

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 8 6	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 6	0 0 9	0 0	0 3	OF 0 4

TEXT (if more space is required, use additional NRC Form 366a) (17)

Consequences of the Event:

There were no adverse consequences as a result of this event. The potential for generating a scram signal as described in this LER exists only when the mode switch is in the shutdown or refuel positions.

Cause of the Event:

The cause of the event was a momentary power loss to the 'A' RPS logic due to the transfer from the M/G set to the alternate power supply combined with SDV high water level. Concurrent with this power loss, the SDV high water level trip signal bypass was in the "bypass" position and the reactor mode switch was in shutdown. A continuous power supply is required to the 'A' and 'B' RPS logics for this bypass to remain functional. When power was lost to the 'A' RPS logic, the bypass was disabled and a reactor scram signal resulted due to SDV high water level.

The SDV water level was high due to a scram from the previous day and was not drained because of a report of high radiation levels in the water. In order to continue with the alignment of equipment to support surveillance tests, the operator continued with the transfer to the alternate power supply realizing that a scram signal would result.

Corrective Actions:

Power was restored to the 'A' RPS logic and the scram signal reset.

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	LER NUMBER (5)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 6	0 0 9	0 0	0 4	OF 0 4

TEXT (if more space is required, use additional NRC Form 366a) (17)

Actions Taken to Prevent Recurrence:

Caution signs have been installed at the location of the alternate feed transfer switches to warn operators that operation of these transfer switches with SDV high water level trip in "bypass" mode combined with SDV high water level will result in a full scram signal.

Previous Similar Occurrences:

LER 2-86-04

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET
P.O. BOX 8699
PHILADELPHIA, PA. 19101
(215) 841-4000

April 16, 1986

Docket No. 50-277

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

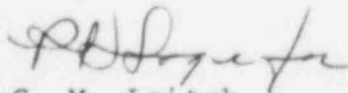
SUBJECT: Licensee Event Report
Peach Bottom Atomic Power Station - Unit 2

This LER concerns a full scram signal due to loss of power to 'A' RPS logic while Scram Discharge Volume level was high with the reactor shutdown.

Reference: Docket No. 50-277
Report Number: 2-86-09
Revision Number: 00
Event Date: March 18, 1986
Report Date: April 16, 1986
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,



G. M. Leitch
Superintendent
Nuclear Generation Division

cc: Dr. Thomas E. Murley, Administrator, Region I, USNRC
T. P. Johnson, NRC Resident Inspector

IE22
/1