

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	PAGE (3) 1 OF 0 4
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TITLE (4)
Primary Containment Isolation While Executing Shutdown Procedure

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)																																								
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">OPERATING MODE (9) N</td> <td colspan="10">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)</td> </tr> <tr> <td rowspan="5">POWER LEVEL (10) 0 0 0</td> <td>20.402(b)</td> <td>20.406(a)</td> <td><input checked="" type="checkbox"/></td> <td>80.73(a)(2)(iv)</td> <td>73.71(b)</td> </tr> <tr> <td>20.406(a)(1)(i)</td> <td>80.38(c)(1)</td> <td><input type="checkbox"/></td> <td>80.73(a)(2)(v)</td> <td>73.71(e)</td> </tr> <tr> <td>20.406(a)(1)(ii)</td> <td>80.38(c)(2)</td> <td><input type="checkbox"/></td> <td>80.73(a)(2)(vii)</td> <td rowspan="3">OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td>20.406(a)(1)(iii)</td> <td>80.73(a)(2)(ii)</td> <td><input type="checkbox"/></td> <td>80.73(a)(2)(viii)(A)</td> </tr> <tr> <td>20.406(a)(1)(iv)</td> <td>80.73(a)(2)(iii)</td> <td><input type="checkbox"/></td> <td>80.73(a)(2)(viii)(B)</td> </tr> <tr> <td>20.406(a)(1)(v)</td> <td>80.73(a)(2)(iii)</td> <td><input type="checkbox"/></td> <td>80.73(a)(2)(ix)</td> <td></td> </tr> </table>												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 0 0	20.402(b)	20.406(a)	<input checked="" type="checkbox"/>	80.73(a)(2)(iv)	73.71(b)	20.406(a)(1)(i)	80.38(c)(1)	<input type="checkbox"/>	80.73(a)(2)(v)	73.71(e)	20.406(a)(1)(ii)	80.38(c)(2)	<input type="checkbox"/>	80.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	20.406(a)(1)(iii)	80.73(a)(2)(ii)	<input type="checkbox"/>	80.73(a)(2)(viii)(A)	20.406(a)(1)(iv)	80.73(a)(2)(iii)	<input type="checkbox"/>	80.73(a)(2)(viii)(B)	20.406(a)(1)(v)	80.73(a)(2)(iii)	<input type="checkbox"/>	80.73(a)(2)(ix)	
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LICENSEE CONTACT FOR THIS LER (12)

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

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 yes, 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: 3-87-03

On March 31, 1987, during the Unit 3 transition from the Hot Shutdown to the Cold Shutdown Condition, the Residual Heat Removal System isolated due to an inadvertent high reactor pressure signal. The insufficient prerequisites and lack of caution statements in the operating procedure allowed the reactor operator to make an incorrect assumption regarding the status of the shutdown cooling system. The operator opened shutdown cooling suction isolation valves M017 and M018 with the downstream piping empty, believing it to be full. The surge of water into the empty line caused the inadvertent high pressure isolation. The unplanned actuation of an engineered safety feature makes this event reportable. The isolation logic was reset, piping verified to be full, and shutdown cooling placed into service. To prevent recurrence, the operating procedure is under revision to include the appropriate caution statement and prerequisites. Aside from the temporary isolation, the unit suffered no adverse consequences from the event.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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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 proceeding from the Hot Shutdown Condition into the Cold Shutdown Condition.

Core cooling was achieved by bypass flow to the main condenser, and the 'B' reactor recirculation pump was in service. The reactor coolant was saturated at 45 psig and 293 degrees F.

Description of the Event:

On March 31, 1987 at 2225 hours, an inadvertent high reactor pressure signal caused isolation of the RHR system. A description of the events surrounding the inadvertent high pressure signal follows.

To assist with the planned shutdown, a second reactor operator was on duty in the control room in accordance with the operating procedure, S.3.2.C.1. Reactor Operator No. 1 was preparing to flush the "A" loop of the Residual Heat Removal (RHR) system. In accordance with the procedure, he raised reactor water level to +40 inches and started the 'C' High Pressure Service Water pump. Reactor Operator No. 2 opened shutdown cooling suction isolation valves M017 and M018, unaware that the downstream piping was empty. The surge of water into the empty line caused the pressure switches, PS128A and PS128B, to trip. The actual trip setpoints have subsequently been determined to be 58 psig for both switches. This is more conservative than the required setpoint of 75 psig.

Reactor Operator No. 1 reacted to the isolation alarms and decreasing water level by opening feedwater makeup valve CV9091 to secure reactor water level. Reactor water level at this time was +10 inches and falling. The supervisor and Reactor Operator No. 1 increased reactor water makeup. Although valves M017 and M018 were automatically closing, Reactor Operator No. 2 manually initiated valve closure. Level did not fall below +4 inches. (The top of active fuel is -172 inches.)

During this event, the piping downstream of valves M017 and M018 was filled. Operators reset the isolation logic, verified the line to be full, opened the valves and placed shutdown cooling into service.

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The EIIS codes for the affected systems are as follows: RHR System - BO; and Containment Isolation System - JM.

Consequences of the Event:

At no time did the operators lose the ability to remove decay heat from the reactor core. Before and during the event, the main condenser was available for cooling. Aside from the temporary isolation, the Unit suffered no adverse consequences from the event.

Cause of the Event:

The cause of the event was determined to be a procedural deficiency, since the established procedure failed to provide caution statements and sufficient prerequisites for verification of the status of the RHR system. Consequently, Reactor Operator No. 2 opened the shutdown cooling suction valves before taking the necessary precautions to assure that the piping downstream was full.

Corrective Actions:

The isolation logic was reset, the lines verified to be filled, and valves M017 and M018 re-opened. The verification is accomplished by partially opening the valves and monitoring reactor water level. The level remained constant, indicating a full system. Isolation did not occur again and an orderly shutdown was achieved as reported in the "Description of Event" section.

Action Taken to Prevent Recurrence

A detailed review of the procedure used for shutdown cooling, S.3.2.C.1, was conducted and a revision is being made to prevent a recurrence. The revision will add a cautionary note and provide procedural steps to ensure that the shutdown cooling

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suction piping is full prior to placing shutdown cooling into service.

Previous Similar Occurrences:

LER 03-86-07 concerned operator error due to procedural inadequacy.

PHILADELPHIA ELECTRIC COMPANY

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PHILADELPHIA, PA. 19101

April 29, 1987

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Docket No. 50-278

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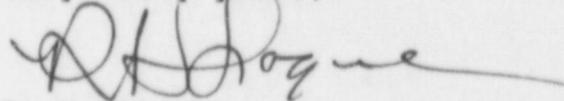
SUBJECT: Licensee Event Report
Peach Bottom Atomic Power Station - Unit 3

This LER concerns the unplanned actuation of the primary containment isolation system on Unit 3. The actuation of an Engineered Safety Feature was caused by procedural deficiencies.

Reference: Docket No. 50-278
Report Number: 3-87-03
Revision Number: 00
Event Date: March 31, 1987
Report Date: April 29, 1987
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,



R. H. Logue
Assistant to the Manager
Nuclear Support Department

cc: W. T. Russell, Administrator, Region I, USNRC
T. P. Johnson, NRC Resident Inspector

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