

LICENSEE EVENT REPORT (LER)										<small>U.S. NUCLEAR REGULATORY COMMISSION</small> <small>APPROVED ONS NO. 2180-010N</small> <small>EXPIRES 8/31/87</small>														
<small>FACILITY NAME (1)</small> Peach Bottom Atomic Power Station - Unit 2															<small>DOCKET NUMBER (2)</small> 0 5 0 0 0 2 7 7					<small>PAGE (3)</small> 1 OF 0 4				
<small>TITLE (4)</small> Work on Core Spray Valves Without Safety Blocking																								
<small>EVENT DATE (5)</small>			<small>LER NUMBER (6)</small>			<small>REPORT DATE (7)</small>			<small>OTHER FACILITIES INVOLVED (8)</small>															
<small>MONTH</small>	<small>DAY</small>	<small>YEAR</small>	<small>YEAR</small>	<small>SEQUENTIAL NUMBER</small>	<small>REVISION NUMBER</small>	<small>MONTH</small>	<small>DAY</small>	<small>YEAR</small>	<small>FACILITY NAME</small>					<small>DOCKET NUMBER (2)</small>										
0	8	1	3	8	6	8	6	0	2	1	0	0	0	9	1	2	8	6	0 5 0 0 0 2 7 7					
<small>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)</small>																								
<small>OPERATING MODE (9)</small> <input checked="" type="checkbox"/> N		<small>20.402 (10)</small>			<small>20.406 (10)</small>			<small>20.736 (12) (14)</small>			<small>73.716 (1)</small>													
<small>POWER LEVEL (10)</small> 0 0 0		<small>20.406 (11) (18)</small>			<small>20.26 (11)</small>			<small>20.736 (12) (14)</small>			<small>73.716 (1)</small>													
		<small>20.406 (11) (18)</small>			<small>20.26 (12)</small>			<small>20.736 (12) (14)</small>			<small>OTHER (Specify in Abstract below and in Test, NRC Form 366A)</small>													
		<small>20.406 (11) (18)</small>			<small>20.736 (12) (14)</small>			<small>20.736 (12) (14) (16)</small>			<small>20.736 (12) (14) (18)</small>													
		<small>20.406 (11) (18)</small>			<small>20.736 (12) (14)</small>			<small>20.736 (12) (14)</small>			<small>20.736 (12) (14)</small>													
<small>LICENSEE CONTACT FOR THIS LER (12)</small>																								
<small>NAME</small> W. C. Birely, Senior Engineer - Licensing Section										<small>TELEPHONE NUMBER</small> 2 15 8 4 1 7 5 0 4 8														
<small>COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)</small>																								
<small>CAUSE</small>	<small>SYSTEM</small>	<small>COMPONENT</small>	<small>MANUFACTURER</small>	<small>REPORTABLE TO NRC</small>	<small>CAUSE</small>	<small>SYSTEM</small>	<small>COMPONENT</small>	<small>MANUFACTURER</small>	<small>REPORTABLE TO NRC</small>															
<small>SUPPLEMENTAL REPORT EXPECTED (14)</small>																								
<small>YES (If you complete EXPECTED SUBMISSION DATE)</small>										<small>EXPECTED SUBMISSION DATE (15)</small>														
<input checked="" type="checkbox"/> NO										MONTH DAY YEAR														

Abstract: 2-86-21

On August 13, 1986 at approximately 2345 hours, it was discovered that construction personnel had performed Environmental Qualification inspection and wire replacements on the Core Spray System minimum flow valve operators without authorization and the required safety blocking. The work resulted in motor control center valve control circuit fuses blowing, which prevented minimum flow valve operation. At the time, Unit 2 was in cold shutdown for Environmental Qualification inspection and wiring replacement of valve motor-operators, and the 'B' loop of the Core Spray System was blocked. None of the minimum flow valves were blocked.

The Core Spray System was not required to be operable at the time. If this event had occurred with the reactor at power, the Core Spray 'A' loop could have been prevented from fulfilling its safety function. The graded construction supervisor responsible for the work was counseled for not verifying that the necessary blocking permits were issued prior to starting work, and he will be required to repeat the blocking permit test prior to being allowed to supervise another work crew or request another blocking permit.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMS NO. 3150-0104

EXPIRES 8/31/86

FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 2 7 7	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 6	0 2 1	0 0	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 and Unit 3 Shutdown For Environmental Qualification
Inspection of Valve Motor-Operators

Description of the Event:

On August 13, 1986 at approximately 2345 hours, personnel error rendered the Unit 2 Core Spray System 'A' loop incapable of fulfilling its safety design basis. However, at the time, the Core Spray System was not required to be operable. The 'B' loop of the Core Spray System was blocked for the ongoing Environmental Qualification (EQ) inspections of valve motor-operators; however, the 'A' loop of the Core Spray System was not blocked. The minimum flow valves on both loops were not blocked; however, electrical construction personnel performed EQ inspections and wiring replacements on the minimum flow valve operators without authorization and blocking permits from Operations. During the course of their work, the construction personnel did not realize that they were working on unblocked equipment.

At approximately 2345 hours on August 13, 1986, control room personnel noticed that no Core Spray minimum flow valve position indication lights were on. Investigation revealed that the lights were off because of inadvertent control circuitry grounding during the unauthorized wiring replacements. This caused the motor control center valve control circuit fuses to fail, causing the minimum flow valves to fail in their normally closed position. If this event had occurred with the reactor at power, the Core Spray System could have been prevented from fulfilling its safety function because minimum flow pump protection was defeated.

The EIIIS code for the affected system is BM, Low Pressure Core Spray.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMS NO. 3150-0104

EXPIRES 8/31/86

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 (8)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 6	0 2 1	0 0	0 3	OF 0 4

TEXT (if more space is required, use additional NRC Form 266A) (17)

Consequences of the Event:

There were no adverse safety consequences in this case; however, this personnel error is considered to be serious. The Core Spray System was not required by the Technical Specifications to be operable because Unit 2 was in the cold shutdown condition and no work was being performed with the potential to drain the reactor vessel. Had a valid loss-of-coolant accident (LOCA) signal occurred, the 'A' loop of the Core Spray System would have performed its safety function because the reactor vessel was depressurized. However, if this event had occurred with reactor vessel pressure above Core Spray pump discharge pressure and a valid LOCA signal occurred, pump damage could have occurred because minimum flow pump protection was not available.

Considering the reduced scope of inspection and maintenance activities while the reactor is at power, and the allowable out-of-service operating restraints on safety related equipment imposed by the Technical Specifications, the probability of this error occurring at power is substantially lower than during a plant outage.

Cause of the Event:

The cause of this event was an error by an upgraded construction supervisor who was aware of the rules and controls in place to prevent this type of occurrence, but unintentionally failed to carry them out. At the time, this individual was upgraded to the position of crew supervisor (sub-foreman). He was fully qualified to hold that position.

To aid in the planning and scheduling of the EQ inspection a list of valves was being used, with markings to indicate which valves had been blocked and which valves had not yet been blocked. The individual supervising the work misinterpreted the list and, consequently, directed work to begin on the minimum flow valves (MO-2-14-05A thru D) without authorization and the proper safety blocking. The upgraded supervisor failed to verify that blocking permits for the minimum flow valves were issued prior to starting work.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED ONE NO. 3150-010E

EXPIRES 8/31/85

FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 2 7 7	LER NUMBER (8)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 6	0 2 1	0 0	0 4	OF 0 4

TEXT (17) must appear in sequence, use additional NRC Form 2004 (17)

Corrective Actions:

Upon discovery, the partially complete EQ inspection work was immediately stopped. The Core Spray minimum flow valves were returned to normal and verified to be operable by 0600 hours on August 14, 1986. Permits were subsequently issued on August 14 for the minimum flow valves and the EQ inspection work was completed on August 17.

A meeting between station management and construction supervisors was held on August 14, 1986 prior to resuming the EQ inspection work to discuss the incident and identify measures to prevent recurrence. It was concluded that the blocking procedures were adequate.

The upgraded supervisor involved was counseled regarding his error and reminded of the need to verify that the necessary blocking permits have been issued for equipment prior to starting work. This individual will be required to successfully repeat the blocking permit test before he is allowed to request a blocking permit again. In addition, he is being denied the opportunity to supervise a work crew for 6 months.

Previous Similar Occurrences:

None.

PHILADELPHIA ELECTRIC COMPANY

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P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4000

September 12, 1986

Docket No. 50-277

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U.S. Nuclear Regulatory Commission
Washington, DC 20555

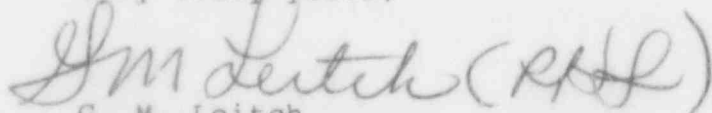
SUBJECT: Licensee Event Report
Peach Bottom Atomic Power Station - Unit 2

This LER concerns unauthorized work which disabled the Core Spray System minimum flow valves.

Reference:	Docket No. 50-277
Report Number:	2-86-21
Revision Number:	00
Event Date:	August 13, 1986
Report Date:	September 12, 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)(v).

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

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