NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

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 3

TITLE (4)
Inoperable High Pressure Coolant Injection Valve Due to Relay 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 3	0 4	8 6	8 6	— 0 0 8	— 0 0	0 4	0 3	8 6		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
N	0 0 3	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	X 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 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
X	BJ	RELAY	C 7 7 0	Y					

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: 3-86-08

On March 4, 1986 at 1628 hours the High Pressure Coolant Injection (HPCI) System steam supply valve, MO-3-23-14, failed to open during testing. At the time, the reactor was at 3% power, in the startup mode, with low reactor pressure. Immediately following the failure, reactor pressure was reduced to below 105 psig so that the HPCI System was not required to be operable. The cause of the failure was determined to be a relay in the valve motor control center. The relay problem was corrected and the MO-3-23-14 valve was verified to be operable at 1740 hours the same day.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
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TEXT (If more space is required, use additional NRC Form 366A) (17)

Unit Conditions Prior to Event

3% Reactor Power
Startup Mode

Description of the Event:

On March 4, 1986 at 1628 hours, with reactor pressure at approximately 185 psig, the Unit 3 High Pressure Coolant Injection (HPCI) steam supply valve, MO-3-23-14, failed to open during alternative shutdown panel modification testing. Although reactor pressure was within the injection capabilities of the low pressure Core Standby Cooling Systems (CSCS), reactor pressure was promptly reduced to below 105 psig so that the HPCI System was not required to be operable.

Investigation revealed that a relay problem in the motor control center (MCC) for MO-3-23-14 prevented the valve from opening.

The HPCI System was inoperable for approximately one hour and 12 minutes. The EIIS code for the affected system is BJ, HPCI.

Consequences of the Event:

At the time of the valve failure, reactor pressure was within the injection capabilities of the low pressure CSCS. Reactor operators promptly reduced reactor pressure to below 105 psig so that the HPCI System was not required to be operable.

The HPCI System is designed to provide high pressure core cooling in the event of a small break in the primary nuclear system and a loss-of-coolant which does not result in rapid depressurization of the reactor vessel. At such a low reactor pressure, the brief inoperability of the HPCI system had no affect on the CSCS capability.

If the HPCI System had become inoperable with the reactor at full power, the safety significance would have been greater, but the backup CSCS equipment and the other high pressure systems were available to satisfy the safety design basis.

Cause of the Event:

The cause of the event was determined to be a dislodged movable contact on a Culter-Hammer device number 538 relay (denoted as TA). This relay is located in the valve MCC timing circuit and operates to: 1) provide resistance to the armature/series field circuit of the valve motor operator and; 2) initiate power to the directional control relays. When the movable contact became dislodged from its spring loaded mount, power could not be applied to the directional control relays and the valve motor could not operate.

Corrective Actions:

When the MO-3-23-14 valve failed to open, the HPCI system was declared inoperable and reactor pressure was reduced to below 105 psig.

The relay's movable contact was properly positioned and the MO-3-23-14 valve was verified as operable at 1740 hours the same day.

Previous Similar Occurrences:

There have been previous events caused by relay failures, however none have been identified which involved a dislodged movable contact.

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April 3, 1986

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 High Pressure Coolant Injection System valve being inoperable.

Reference:	Docket No. 50-278
Report Number:	3-86-08
Revision Number:	00
Event Date:	March 4, 1986
Report Date:	April 3, 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,

FOR R A Moore
W. T. Ullrich
Superintendent
Nuclear Generation Division

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

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