



# PECO NUCLEAR

A UNIT OF PECO ENERGY

Garrett D. Edwards  
Plant Manager  
Peach Bottom Atomic Power Station

PECO Energy Company  
1848 Lay Road  
Delta, PA 17314-9032  
717 456 4244

October 31, 1996

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

Docket Nos. 50-277

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

This LER concerns an inoperability of the High Pressure Coolant Injection System due to a misaligned bearing assembly.

Reference:	Docket No. 50-277
Report Number:	2-96-009
Revision Number:	00
Event Date:	10/1/96
Report Date:	10/31/96
Facility:	Peach Bottom Atomic Power Station 1848 Lay Road, Delta, PA 17314

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(v).

Sincerely,

GDEAFP:afp

enclosure

cc: B. Gorman, Public Service Electric & Gas  
R. R. Janati, Commonwealth of Pennsylvania  
INPO Records Center  
H. J. Miller, US NRC, Administrator, Region I  
R. I. McLean, State of Maryland  
W. L. Schmidt, US NRC, Senior Resident Inspector  
A. F. Kirby III, DelMarVa Power  
H. C. Schwemm, VP - Atlantic Electric

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## LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Peach Bottom Atomic Power Station Unit 2

DOCKET NUMBER (2)

0 5 0 0 0 2 7 7 1 OF 0 2

PAGE (3)

TITLE (4)

High Pressure Coolant Injection System Inoperable Due to Bearing Misalignment

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)
10	01	96	96	009	001	10	31	96		0 5 0 0 0
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)										
OPERATING MODE (9)		2		20.402(b)		20.406(c)		50.73(a)(2)(iv)		73.71(b)
POWER LEVEL (10)		002		20.406(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)
				20.406(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)
				20.406(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		
				20.406(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)		
				20.406(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
George Lengyel, Manager Experience Assessment	717-415161-1710114

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)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input checked="" type="checkbox"/>	<input type="checkbox"/>				

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

On October 1, 1996, at 11:35 the Unit 2 HPCI System was removed from service during performance of ST-O-023-200-2 "HPCI Flow Rate at 175 PSIG" due to excessive heat on the booster pump outboard seal. The appropriate technical specification required action was entered. A one hour notification was made to the NRC at 13:47 on 10/01/96 in accordance with 10 CFR 73 (B)(2)(III). The cause of the excessive heat on the HPCI booster pump outboard seal was a misalignment of the outboard bearing housing. The misalignment occurred during corrective maintenance performed on the outboard bearing housing gaskets. The procedure used during corrective maintenance did not provide adequate detail to perform an alignment verification following reassembly of the bearing housing. No actual safety consequences occurred as a result of this event. The bearing housing was realigned, ST-O-023-200-2 was performed satisfactorily and the HPCI System was declared operable on October 2, 1996, at 16:01. The HPCI booster pump procedure will be revised to provide appropriate guidance for bearing alignment. Maintenance procedures for similar safety systems will be reviewed to ensure adequate guidance for alignment is provided. No previous similar LERs were identified in which HPCI was declared inoperable due to bearing misalignment.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Peach Bottom Atomic Power Station Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 2 7 7 9 6 — 0 0 9 — 0 0 0 2 OF 0 2	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Requirements of the Report

This report is submitted pursuant to 10 CFR 50.73(a)(2)(v) due to unplanned High Pressure Coolant Injection (HPCI) System inoperability.

Unit Conditions at Time of Discovery

Unit 2 was in Mode 2 (START-UP) with reactor pressure at approximately 175 psig. There were no other systems, structures, or components that were inoperable that contributed to the event.

Description of the Event

On October 1, 1996, at 11:35 the Unit 2 HPCI System was removed from service during performance of ST-O-023-200-2 "HPCI Flow Rate at 175 PSIG" due to excessive heat on the booster pump outboard seal. The appropriate technical specification required action was entered. A one hour notification was made to the NRC at 13:47 on 10/01/96 in accordance with 10 CFR 73 (B)(2)(III).

Cause of the Event

The cause of the excessive heat on the HPCI booster pump outboard seal was a misalignment of the outboard bearing housing. The misalignment occurred during corrective maintenance performed on the outboard bearing housing gaskets. The procedure used during corrective maintenance did not provide adequate detail to perform an alignment verification following reassembly of the bearing housing.

Analysis of the Event

No actual safety consequences occurred as a result of this event.

The Core Spray and the Low Pressure Coolant Injection systems were operable and were capable of providing adequate core cooling in the event of a loss of coolant accident. In addition, an engineering analysis was performed which determined the HPCI System could have performed its intended safety function with the bearing housing misaligned.

Corrective Actions

The bearing housing was realigned, ST-O-023-200-2 was performed satisfactorily and the HPCI System was declared operable on October 2, 1996, at 16:01.

The HPCI booster pump procedure will be revised to provide appropriate guidance for bearing alignment.

Maintenance procedures for similar safety systems will be reviewed to ensure adequate guidance for alignment is provided.

Previous Similar Events

No previous similar LERs were identified in which HPCI was declared inoperable due to bearing misalignment.