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 5

TITLE (4) Reactor Water Cleanup System Isolation Signal During Piping Decontamination Process Due To Procedural Deficiency

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)
1 1	2 9	8 7	8 7	— 0 1 1	— 0 0	1 2	2 9	8 7		0 5 0 0 0
										0 5 0 0 0

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)	20.405(c)	X	50.73(a)(2)(iv)		73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)		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
	AREA CODE
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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

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:

On November 29, 1987 at 1800 hours, Reactor Water Cleanup System (RWCU) isolation and RWCU pump trip signals were generated due to a high non-regenerative heat exchanger outlet temperature signal. The RWCU system was out of service at the time and a special decontamination process of the piping was in progress. Process flow temperature reached the trip setpoint and the trip logic actuated. No valves moved because the isolation valves were blocked in the closed position. The RWCU pumps were not affected because they were not in service. A temporarily installed pump was in use. The isolation signal was reset approximately two hours later. There were no adverse safety consequences and this event has no safety significance.

This event occurred because a of deficiency in the procedure being used for the special decontamination process. When the procedure was prepared and reviewed, it was not recognized that precautions were needed to prevent a high temperature isolation signal. Consequently, the procedure did not include steps to prevent the isolation signal. Although it is not expected that this procedure will be used again, it has been revised to prevent a high temperature isolation during a decontamination process.

NRC Form 366
(9-83)

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

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Plant Conditions Prior to the Event:

Reactor Mode Switch in "REFUEL"

All Fuel Removed From Reactor Vessel

Special Decontamination Process of Reactor Water Cleanup System Piping in Progress

Description of the Event:

On November 29, 1987 at 1800 hours, Reactor Water Cleanup (RWCU) System isolation and RWCU pump trip signals were generated due to high non-regenerative heat exchanger outlet temperature while the RWCU System was out of service. No valves moved because they were blocked in the isolated (closed) position at the time. No RWCU pumps tripped because none were in service. The event was immediately discovered because control room alarms actuated.

The RWCU System was in a unique condition when the isolation occurred. A special piping decontamination process was in progress to minimize personnel radiation exposures during upcoming modifications to the RWCU System piping. The RWCU System inlet and outlet containment isolation valves, MO-3-12-15, MO-3-12-18 (inlet) and MO-3-12-68 (outlet), were blocked in the closed position. These are the only valves that received isolation signals. The RWCU pumps were uncoupled from their motors and the process flow was established by a temporary pump which was installed and in service specifically for the decontamination process (see attached diagram).

The isolation signal was reset approximately two hours later when the process flow temperature was reduced.

Consequences of the Event:

There were no adverse safety consequences. Except for the actuation of the isolation logic, the event had no effect on plant equipment. The RWCU System was out of service and not needed to perform any function at the time. Pipe spool pieces

had been removed to attach the decontamination process equipment. Because the system piping can be decontaminated only with the reactor shutdown and the system blocked, the circumstances associated with this event are not applicable to power operations.

Cause of the Event:

This event was caused by a procedural deficiency. Special Procedure SP 1051 was prepared for the RWCU piping decontamination process. Although it was anticipated that process flow temperature would be as high as 200 degrees F (which is equal to the non-regenerative heat exchanger outlet temperature trip setpoint) during the process, there was no provision in the procedure to prevent the isolation signal. Consequently, when process flow temperature reached the setpoint the isolation signal was generated. The potential for this isolation was overlooked by the contract engineers (non-licensed) who prepared the procedure and the Philadelphia Electric Company engineers who reviewed the procedure (including the Plant Operations Review Committee).

Corrective Actions:

It is unlikely that this procedure will be used again because the decontamination process is not a routine task. However, to prevent recurrence in the event that the procedure is used in the future, the procedure has been revised to add steps to bypass the high temperature isolation. The revised procedure was reviewed and approved by the Plant Operations Review Committee.

EIIS Codes:

The EIIS Code for the system referred to in this LER is CE (RWCU). The EIIS Codes for the components referred to in this LER are: P (pump), HX (heat exchanger), PSP (pipe, spool), ISV (isolation valve), RPV (reactor vessel), HS (handswitch, mode switch), ALM (alarm) and MO (motor).

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

TEXT (If more space is required, use additional NRC Form 366A's) (17)

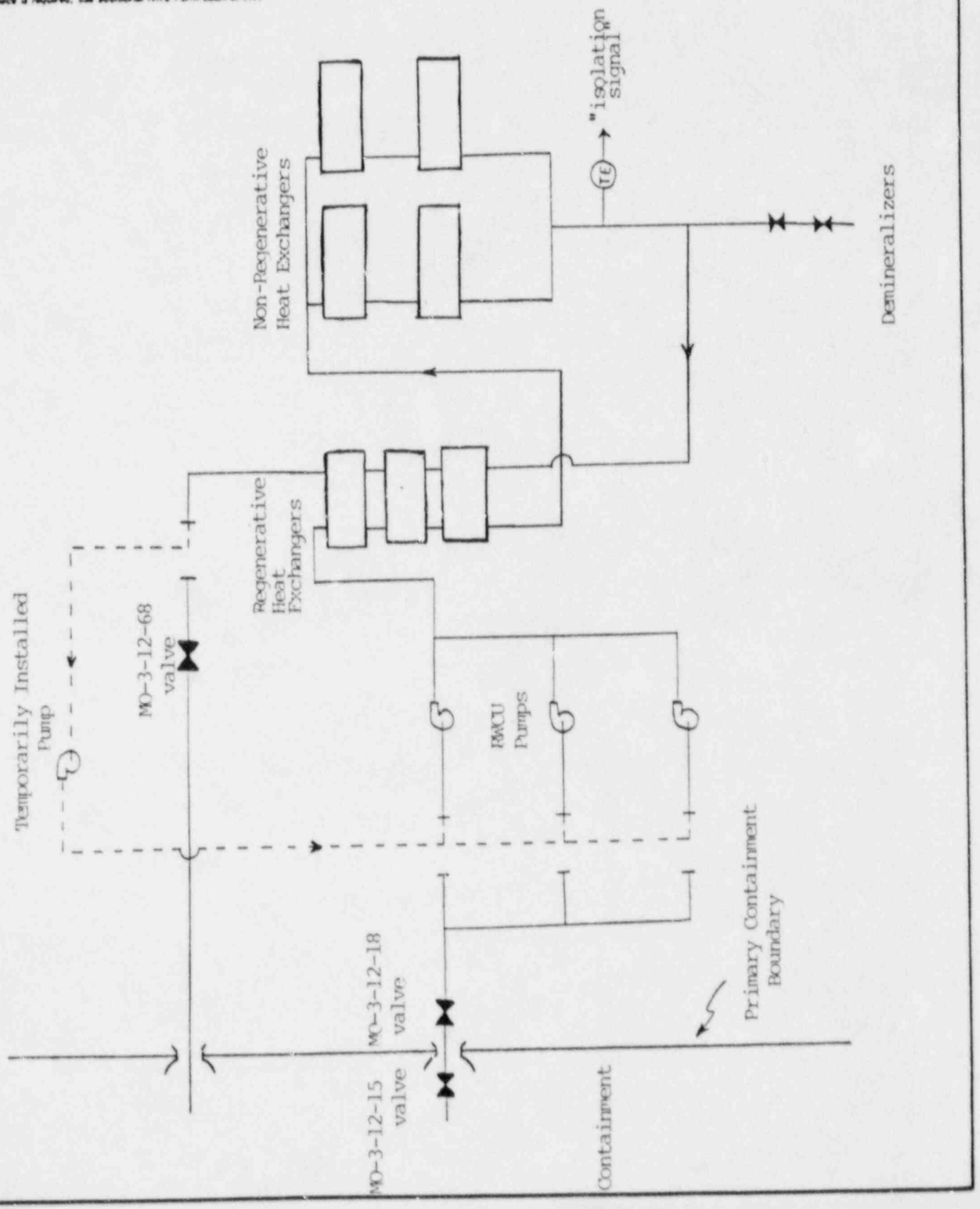
Previous Similar Occurrences:

The following LERs concerned events caused by a procedural deficiency: 3-87-9, 3-87-6, 3-87-3, 2-87-7, 3-86-7, and 3-85-25.

Tracking Code: D2, Inadequate Procedure

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

TEXT (If more space is required, use additional NRC Form 366A's) (17)



PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4000

December 29, 1987

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 Reactor Water Cleanup System isolation which occurred while the reactor vessel was defueled.

Reference:	Docket No. 50-278
Report Number:	3-87-11
Revision Number:	00
Event Date:	November 29, 1987
Report Date:	December 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,

W. M. Alden
Engineer-In-Charge
Licensing Section
Nuclear Services Department

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

IE22
1/1