



PEACH BOTTOM--THE POWER OF EXCELLENCE

**PHILADELPHIA ELECTRIC COMPANY**

PEACH BOTTOM ATOMIC POWER STATION

R. D. 1, Box 208  
Delta, Pennsylvania 17314

(717) 456-7014

June 21, 1991

Docket Nos. 50-277  
50-278

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

SUBJECT: Licensee Event Report  
Peach Bottom Atomic Power Station - Unit 2 and 3

This LER concerns an entry into Technical Specification 3.0.C due to a belief that the Emergency Diesel Generators were inoperable.

Reference: Docket Nos. 50-277  
50-278  
Report Number: 2-91-018  
Revision Number: 00  
Event Date: 05/23/91  
Report Date: 06/21/91  
Facility: Peach Bottom Atomic Power Station  
RD 1, Box 208, Delta, PA 17314

This LER is being submitted voluntarily.

Sincerely,

cc: J. J. Lyash, USNRC Senior Resident Inspector  
T. T. Martin, USNRC, Region I

9106270209 910621  
FDR ADOCK 05000277  
S FDR

5027  
11

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 2 and 3										DOCKET NUMBER (2) 0 5 0 0 0 2 7 7 1 OF 0 3										PAGE (3) 1 OF 0 3	
TITLE (4) Voluntary Report Concerning Entry Into Technical Specification 3.0.C due to Belief That Diesel Generators Inoperable due to Non-Safety Classified Switches																					
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 NAME			DOCKET NUMBER (3)									
0 5	2 3	9 1	9 1	0 1 8	0 0	0 6	2 1	9 1	Peach Bottom - Unit 3			0 5 0 0 0 2 7 8									
												0 5 0 0 0									
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one of more of the following) (11)																			
N		20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)							
POWER LEVEL (10)		20.405(a)(1)(i)				50.36(a)(1)				50.73(a)(2)(iv)				73.71(a)							
1 1 0 0		20.405(a)(1)(ii)				50.36(a)(2)				50.73(a)(2)(v)				X OTHER (Specify in Abstract below and in Text, NRC Form 388A)							
		20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(vi)(A)											
		20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(vi)(B)											
		20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(v)				Voluntary							
LICENSEE CONTACT FOR THIS LER (12)																					
NAME Albert A. Fulvio, Regulatory Engineer										TELEPHONE NUMBER AREA CODE 7 1 7 4 5 6 - 7 0 1 4											
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																					
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC											
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)

On 5/23/91 at 1545 hours, Technical Specification 3.0.C was entered and a plant shutdown initiated due to a belief that the 4 station Emergency Diesel Generators (EDG's) could potentially be rendered inoperable during design basis events. This could result in the inability of Unit 2 and 3 safety systems to perform their function during design basis events coincident with a loss of off-site power event. The cause of the event was due to misclassification of the EDG day tank temperature switches (TS's) as not safety related during the safety related component list generation in 1987-1988. It was believed that this could result in inadvertent tripping of the day tank transfer pump thereby not allowing fuel oil to be automatically transferred for longer term EDG operability. A temporary plant alteration was completed by 2200 hours to remove the TS from the circuit. Further engineering review concluded on 6/17/91 that the existing TS's were operable and could function properly in design basis events. Therefore the EDG's were operable. The EDG day tank TS's will be reclassified as safety-related. Other components will be reviewed. There were no safety consequences or previous events.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Peach Bottom Atomic Power Station Unit 2	DOCKET NUMBER (2)  0 5 0 0 0 2 7 7	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 1	0 1	8	0 0	2	OF 0 3

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

Requirements for the Report

This report is submitted voluntarily concerning an entry into Tech Spec 3.0.C when it was believed that the Emergency Diesel Generators (EDG's)(EIIS:EK) were inoperable.

Although this event was promptly reported to the NRC via the Emergency Notification System on 5/23/91 at 1826 as a condition outside the design basis, as well as an initiation of a plant shutdown, it was later determined that the EDG's were operable.

Unit Conditions at Time of Discovery

Unit 2 in the RUN mode at 100% rated power. Unit 3 was shutdown in the REFUEL mode. There were no other systems, structures, or components that were inoperable at time of discovery that contributed to this event.

Description of Event

On 5/23/91, at 1545 hours, Tech Spec 3.0.C was entered and a plant shutdown initiated due to a belief that the 4 station EDG's could potentially be inoperable during design basis events. Tech Spec 3.0.C requires the plant to be in hot shutdown within 6 hours and cold shutdown within 36 hours when no applicable LCO exists as is the case in 4 EDG's potentially inoperable.

Inoperability of the 4 station EDG's would potentially result in the inability of the Unit 2 and 3 safety systems to perform their function during design basis events coincident with a loss of off-site power (LOOP) event. Because of an issue identified during a recent internal Safety System Functional Inspection, it was conservatively assumed by plant management that the temperature switch (TS)(EIIS:TS) mounted on each of the 4 EDG fuel oil day tanks (EIIS:TK) would fail during design basis events since they were not currently listed as safety related. The purpose of the TS is to sense high temperature inside the day tank which is indicative of a fire in the tank. The TS is interlocked to the day tank transfer pump (DTTP)(EIIS:P) to trip the pump in the event of a tank fire. This trip function is not a safety function. However, the DTTP circuit is safety related to ensure adequate fuel oil transfer between the nominal 37,500 gallon underground storage tank to the nominal 550 gallon day tank. Failure of the TS during design basis events could result in inadvertent tripping of the DTTP thereby not allowing fuel oil to be automatically transferred for longer term EDG operation.

A temporary plant alteration was completed on all 4 EDG's by 2200 hours that removed the TS from the DTTP circuitry. This resolved any potential operability concerns with the EDGs.

On 6/17/91, further engineering review determined that the existing TS's installed were operable and would function properly in design basis events.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Peach Bottom Atomic Power Station Unit 2	0 5 0 0 0 2 7 7	9 1	0 1 8	0 0	0 3	OF	0 3

TEXT (If more space is required, use additional NRC Form 305A's) (17)

Cause of the Event

The cause of the event is due to misclassification of the EDG day tank TS's as non-safety related. Although the switches were originally classified as safety related, they were subsequently downgraded to non-safety related. This occurred during the development of the safety related component list during 1987-1988. One of the rules being used during the development of the component list that allowed this misclassification was determined to be less than adequate. The rule was unclear as to when a component that does not have an overall safety related function but interfaces with safety related equipment can be designated as non-safety related.

Because the TS's were classified as non-safety related, these switches could have potentially been rendered inoperable for design basis events by maintenance, modifications, or testing.

Analysis of the Event

There were no actual safety consequences as a result of this event.

On 6/17/91, an engineering review was performed to determine the operability of the EDG day tank TSs. Based on review of maintenance records, 3 of the 4 EDG day tank TSs were determined to be original equipment furnished by the EDG vendor as safety related. The E-4 EDG TS had been replaced during maintenance with the same model number as the original equipment. Based on the above, it was determined that the existing TSs were operable and could have functioned properly during design basis events. Therefore, the EDGs were operable.

Corrective Actions

A temporary plant alteration was completed on 5/23/91, at 2200 hours to remove the TS from the DTTP circuitry. This resolved any potentially operability concerns with the EDG's.

An engineering review performed on 6/17/91 determined that the existing TS's were operable and could have functioned properly during design basis events.

The EDG day TS's will be reclassified as safety related. Other components that may have been affected by the safety related component program rule will be reviewed for reclassification and the rule will be revised as appropriate. The temporary plant alteration will be removed.

Previous Similar Events

There were no previous similar events identified that involved potential safety system inoperability due to an incorrect reclassification of a component as non-safety related.