

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Peach Bottom Atomic Power Station Unit 2	DOCKET NUMBER (2) 0500027784	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	DIVISION NUMBER		
		84	008	00	02	OF 03

(If more space is required, use additional NRC Form 366A (1))

Description of the Event:

On April 27, 1984, Unit 2 was operating at 80% power coasting down to begin the end of cycle 6 outage. At 6:00 p.m., the 'A' fan of the SBT system was manually started to commence the drywell deinerting; however, no flow was achieved using the 'A' fan because both the inlet and outlet dampers failed to open.

The Peach Bottom Units 2 & 3 SBT system consists of an 'A' and a 'B' filter assembly, and three fans, 'A', 'B', and 'C' ducted in parallel to the filter assemblies. The 'A' fan is utilized for Unit 2, with 'B' as a standby, and the 'C' fan is utilized for Unit 3 with the 'B' fan as a standby.

Consequences of the Event:

As a result of an investigation into the consequences of the SV-0009 failure, it was determined that the potential existed for a single failure to have prevented the fulfillment of the safety function of the SBT system.

If, on the date of the occurrence, a Group III isolation had occurred on Unit 2, the 'A' SBT system fan would have started automatically, but there would have been no flow and the 'B' SBT system fan would not have received the low 'A' fan differential pressure signal to start due to the orientation of the differential pressure switch sensing lines.

The high and low sensing taps of the differential pressure switch are piped between the dampers to the inlet and outlet of the 'A' fan to prove flow. With the dampers closed and the fan running, the switch would have sensed a differential pressure preventing the 'B' fan from automatically starting.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		84	008	00	03	OF	03

TEXT (If more space is required, use additional NRC Form 368A) (17)

Cause of the Event:

The inlet and outlet dampers on the SBTG system fans are actuated by pneumatic operators. Each fan has a 120V.AC 3-way Asco solenoid valve (Catalog Number HT8320A83) which is normally energized, and wired into the fan control circuit. When the SBTG system is actuated, the solenoids pass a pneumatic signal to open the inlet and outlet dampers. When the 'A' fan was manually started, solenoid valve, SV-0009, failed to operate and the dampers remained closed.

If the SBTG had been automatically started, 'B' fan would not have received a standby start signal from the 'A' fan differential pressure switch because the low and high pressure taps for the switch are located within the inlet and outlet dampers. With the 'A' fan running and these dampers closed, the differential pressure switch would have measured a differential between the inlet and outlet of the fan indicating that there was 'A' fan flow, thus inhibiting the automatic 'B' fan start.

Corrective Actions:

The defective solenoid on the 'A' fan was replaced, the system was satisfactorily tested and placed in service at 2:20 a.m. on April 28, 1984. The defective solenoid was inspected by station personnel. There were no visible causes for the failure. The solenoid will be given to the Electrical Engineering Division for further analysis to determine the cause of failure.

The standby start differential pressure switches on the 'A' and 'C' fans will be replaced with a flow sensor using a duct pitot tube. An engineering evaluation is being performed to determine optimum positioning of the sensors in the SBTG system ductwork to ensure proper flow sensing. It is expected that this will be completed by June 20, 1984, with the subsequent modification complete within four weeks after that.

Until such time that the solenoid failure analysis and flow sensor modification are completed, a daily routine test of the operability of the SBTG system fans inlet and outlet dampers will be performed.

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET
P.O. BOX 8699
PHILADELPHIA, PA. 19101
(215) 841-4000

May 29, 1984

Docket No. 50-277

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Washington, DC 20555

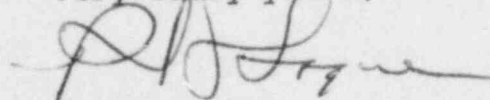
SUBJECT: Licensee Event Report

This LER concerns the failure of a solenoid valve in the Standby Gas Treatment System on Peach Bottom Unit 2.

Reference:	Docket No. 50-277
Report Number:	2-84-08
Revision Number:	00
Event Date:	April 27, 1984
Report Date:	May 29, 1984
Facility:	Peach Bottom Atomic Power Station RD #1, Box 208, Delta, PA 17314

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

Very truly yours,



R. H. Logue
Superintendent
Nuclear Services

cc: Dr. Thomas E. Murley, Administrator
Region I, USNRC

Mr. A. R. Blough
Site Inspector

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