

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 2	DOCKET NUMBER (2) 0500027784	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	ALPHABETIC NUMBER			
		84	011	01	02	OF	03

TEXT (if more space is required use additional NRC Form 255B (17))

Description of the Event:

At approximately 8:30 a.m. on June 8, 1984, during the present refueling outage, a contractor employee, in preparation to perform preheat for welding in the Unit 2 drywell, attached and valved into service one cutting torch to acetylene and oxygen hoses at elevation 203 in the drywell.

After performing these preliminary actions, the contractor employee left to dress for performing the preheat and welding work. Upon returning to the drywell to perform the work, the contractor detected a strong smell of acetylene. The contractor employee reported the problem to contractor safety personnel, who recommended personnel evacuation from the drywell. Personnel were immediately evacuated from the drywell.

Both a contractor safety employee and a welding supervisor entered the drywell with a pretested Syntox explosive tester which alarmed on low oxygen (the low oxygen alarm setpoint of the Syntox explosive tester is set at 19.5% oxygen) and measured a concentration of eight percent (8%) LEL (Lower Explosive Limit) acetylene and eighteen percent (18%) oxygen at elevation 186. The measured eighteen percent oxygen concentration at elevation 186 in the drywell was considered an oxygen deficient atmosphere; therefore, the two personnel immediately evacuated the drywell. The measured eight percent LEL acetylene concentration at elevation 186 was determined to represent an acetylene atmospheric concentration of zero point two percent (0.2%) acetylene in the drywell.

As a mitigating measure, a second equipment cell fan and the Reactor Building exhaust fan were turned on to supplement the drywell purge and equipment cell fan. In addition, maximum ventilation was provided to the drywell by the reactor building and refuel floor supply fans.

A subsequent check of the drywell with a pretested Syntox explosive tester at approximately 1:30 p.m. measured no trace of acetylene and a twenty-one percent oxygen concentration at elevation 203.

The supplemental ventilation sufficiently expelled the acetylene gas and returned a normal oxygen level to the drywell. The Syntox explosive tester was satisfactorily tested to verify its proper operation following the 1:30 p.m. measurement.

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FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 2	DOCKET NUMBER (2) 05000277	LER NUMBER (6)			PAGE (3)	
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TEXT (if more space is required, use additional NRC Form 366a) (17)

During the follow-up investigation, the acetylene torch was examined and both valves to the torch were found closed. The oxygen side was found pressurized, but the acetylene side was depressurized. Additional investigation identified that the acetylene leakage occurred at the point where the hose is crimped onto the standard screw connection at the cutting torch.

Consequences of the Event:

The immediate action taken following the event was removal of all acetylene bottles from the reactor building. Following licensee review and approval of new contractor requirements, the contractor was given approval to return acetylene and oxygen gas to Unit 2 drywell on June 21, 1984.

Cause of the Event:

Investigation of the event discovered a leak at the point where the acetylene hose is crimped onto the standard screw connection.

Corrective Actions:

New control measures were written for controlling acetylene within the drywell. These measures are included within the document 'Burning and Cutting Requirements for Pipe Replacement within the Drywell'. Among these control measures are instructions requiring leak testing and the verification of the absence of leaks on all acetylene equipment from the bottle to the torch. Personnel are also required to be stationed inside the drywell whenever acetylene is valved into service.

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August 6, 1984

Docket No. 50-277

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

SUBJECT: Licensee Event Report

This revision of a previously submitted LER concerns an acetylene leak in the Unit 2 drywell during outage work. This revision provides additional quantitative information regarding the concentration of acetylene discovered in the Unit 2 drywell and provides an enhanced description of the event. The revised sections of this LER are identified by a vertical bar in the margin.

Reference:	Docket No. 50-277
Report Number:	2-84-11
Revision Number:	01
Event Date:	June 8, 1984
Report Date:	August 6, 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 50.73a(2)(x).

Very truly yours,

W. M. Alden
for

R. H. Logue
Superintendent
Nuclear Services

cc: Dr. Thomas E. Murley, Administrator
Mr. A. R. Blough, Site Inspector

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