

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)										DOCKET NUMBER (2)										PAGE (3)	
Limerick Generating Station - Unit 1										0 5 0 0 0 3 5 1 2										1 OF 05	
TITLE (4)										OTHER FACILITIES INVOLVED (5)											
Technical Specification Violation Due to Inadequate Training and an Equipment Failure																					
EVENT DATE (6)			LER NUMBER (8)			REPORT DATE (7)			FACILITY NAME			DOCKET NUMBER (5)									
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR													
12	30	87	87	068	00	01	29	88				0 5 0 0 0 1 1									
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																					
OPERATING MODE (9)			20.402(a)			20.406(a)			20.73(a)(2)(iv)			73.71(a)									
POWER LEVEL (10)			20.406(a)(1)(ii)			20.36(a)(1)			20.73(a)(2)(iv)			73.71(a)									
100			20.406(a)(1)(ix)			20.36(a)(2)			20.73(a)(2)(viii)			OTHER (Specify in Abstract, Appendix and in Text, NRC Form 306A)									
			20.406(a)(1)(vi)			X 20.73(a)(2)(ii)			20.73(a)(2)(viii)(A)												
			20.406(a)(1)(iv)			20.73(a)(2)(i)			20.73(a)(2)(viii)(B)												
			20.406(a)(1)(v)			20.73(a)(2)(iii)			20.73(a)(2)(ix)												
LICENSEE CONTACT FOR THIS LER (12)										TELEPHONE NUMBER											
NAME										AREA CODE											
Charles A. Mengers, Senior Engineer, Licensing Section										215 8411-5184											
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												
B	IL	PLDIS	B070	N																	
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)											
YES (1) OR COMPLETE EXPECTED SUBMISSION DATE:										X NO											
MONTH										DAY											
YEAR																					

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

Abstract:

On December 30, 1987 at approximately 1000 hours the radiation monitor sampling system for the hot maintenance shop was found out of service while the shop ventilation system was operating. This violates Technical Specification 3.3.7.12 which requires continuous sampling while the shop ventilation is in service. The monitoring system was out of service for approximately twenty four hours while the shop ventilation was operating. The hot shop ventilation was secured at approximately 1000 hours on the 30th and the system was blocked out of service until corrective actions could be taken to preclude the possibility of further operation of the system in violation of technical specifications. The cause of the event was combination of inadequate training and equipment failure. To prevent recurrence training will be provided to all licensed personnel by June 2, 1988. The training will stress the interdependence of system indications and what indications are valid for determining system operability. In addition, the scope of review of a previously requested modification has expanded and is continuing.

There were no consequences and no release of radiation occurred as a result of this event.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED CASE NO. 3180-0104

EXPIRES 8/21/86

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		0600035287	0618	010	02	OF	05

TEXT (If more space is required, use additional NRC Form 200A 2/117)

Unit Conditions Prior to the Event:

Operational Condition 1, Unit 1 operating at 100% power.

Description of the Event:

On December 30, 1987 at approximately 1000 hours a chemistry technician observed the sample pump for the hot maintenance shop ventilation radiation monitor was not operating and the shop ventilation system was in service. This information was relayed to the control room shift supervisor who declared the sampling system inoperable. Technical Specification 3.3.7.1² requires a constant sampling radiation monitor to operate when the hot maintenance shop ventilation is in service. Therefore, control room personnel immediately secured the shop ventilation and a blocking permit was applied by 1100 hours that day to prevent future non-compliances.

On the 29th at approximately 1000 hours a chemistry technician had obtained a weekly grab sample from the hot maintenance shop radiation monitor as required by ST-5-076-820-0 "Weekly Particulate Analysis". The sample pump was secured prior to sampling and restarted as required once sampling was complete. After return to service, the technician noticed that the electronic flow indicator showed a normal sample flow of 3 SCFM. However, the glass rotameter was reading approximately zero. The technician also reported feeling the pump vibrating and described these indications to control room supervision. Shift Supervision checked that the control room indications were normal and concluded that the system was operable and allowed the hot shop ventilation to continue to operate. The same technician returned and verified similar indications at 1430 hours that day. These indications are described below.

The sampling procedure used requires that a flow indication be recorded. This indication is from a Barksdale "Dialmatic Pressure Switch" #VCD2H-H18SS, 8-30" range. The switch output results in either a 3 SCFM or 0 SCFM readout since the switch is either open or closed. This instrument provides a sample flow input into a data processing unit which indicates in the control room and at the skid. A more rudimentary indication is available locally in the form of a glass rotameter.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMS NO 3180-0104

EXPIRES 8/31/95

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		0 6 8	0 0	0 3	OF	0 5

TEXT (If more space is required, use additional NRC Form 305A 3/117)

Consequences of the Event:

There were no consequences and no release of radiation occurred. No work on contaminated components was done in the shop from the 29th thru the 30th of December.

If there had been work on contaminated components there would be the potential of an unmonitored release. However, local sampling points are used when contaminated components are in the shop. Radiation levels of each sample are checked every 8 hours.

Cause of the Event:

The cause of the event was a combination of inadequate training and equipment failure.

Personnel training on this system has been inadequate and contributed to the cause of the event. Shift supervision used control room indications available to determine system operability. It was not known by supervision that all control room indication on this system could be affected by a single failure which would result in both local and control room indications appearing NORMAL.

The Barksdale Pressure switch was tested and found to produce false indications due to the pressure switch sticking. This resulted in a normal flow indication (3 SCFM) locally and in the control room. It also gives a normal system running indication locally and in the control room. These indications gave the appearance that the system was operating normally.

Corrective Actions:

At approximately 1000 hours on the 30th a chemistry technician reported that the sampling system was not operating; shift supervision immediately secured the hot shop ventilation.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/86

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		87	068	00	

TEXT (4) more space is required, use additional NRC Form 305A 4/ (17)

Actions to Prevent Recurrence:

The hot shop ventilation fans have been blocked out of service. The block will not be removed until adequate actions are taken which will preclude a recurrence of this event. These actions are described below.

Operations personnel will receive training which will describe the system indications available in the control room and at the skid. This training will target the lack of independence between control room indications and the local electronic indications. It will include the sampling flow rate requirements which satisfy technical specifications. Also, training will detail those indications which in general may be used to determine system operability. This training will be given in the next cycle of Licensed Operator Regualification training which will be completed by June 2, 1988.

The sticking pressure switch was replaced and tested satisfactorily. A modification was requested in July 1987 to provide an interlock to trip the ventilation fans if a sampling failure occurs. The scope of the modification review will be expanded to include the necessity of providing design redundancy to preclude a single failure from violating technical specifications.

To provide additional control and awareness, a number of procedures will be revised. The system sampling and operating procedures will be revised to include recording both the electronic and the rotometer flow indications with an acceptable range of flow indication. A statement will be added to aid shift supervision in assessing system operability. These revisions will be made by February 29, 1988.

EIIS Codes:

UC Service Building Environmental Control System

IL Radiation Monitoring System

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Limerick Generating Station Unit 1	0 5 0 0 0 3 5 2 8 7 - 0 6 8 - 0 b	0 5	OF	0 5			

TEXT (If more space is required, use additional NRC Form 305A 1/117)

Previous Similar Events:

LER 87-031 involved a violation of technical specification similar to this LER.

Tracking Codes: Inadequate Training (X)

Design, Manufacture, Construction/Installation
Deficiency (B)

PHILADELPHIA ELECTRIC COMPANY

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January 29, 1988

Docket No. 50-352

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

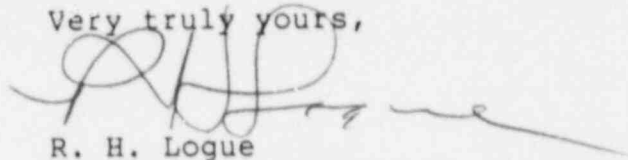
SUBJECT: Licensee Event Report
Limerick Generating Station - Unit 1

This LER details a violation of Technical Specification 3.3.7.12 due to inadequate training and an equipment failure.

Reference:	Docket No. 50-352
Report Number:	87-068
Revision Number:	00
Event Date:	December 30, 1987
Report Date:	January 29, 1988
Facility:	Limerick Generating Station P.O. Box A, Sanatoga, PA 19464

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

Very truly yours,



R. H. Logue
Assistant to the Manager
Nuclear Support Division

cc: W. T. Russell, Administrator, Region I, USNRC
E. M. Kelly, Senior Resident Site Inspector

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