

LICENSEE EVENT REPORT (LER)

APPROVED OMS NO. 2180-010N
EXPIRES 8/31/93

FACILITY NAME (1)

Limerick Generating Station - Unit 1

DOCKET NUMBER (2)

050003521 OF 03

PAGE (3)

TITLE (4)

Main Control Room Chlorine Isolation

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 (S)	
04	02	85	85	042	00	05	02	85			050003521	
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)									
POWER LEVEL (10) 01012			20.402(a)			20.406(a)			<input checked="" type="checkbox"/> 00.73(a)(2)(u)			73.71(u)
			20.406(a)(1)(i)			00.36(a)(1)			00.73(a)(2)(v)			73.71(v)
			20.406(a)(1)(ii)			00.36(a)(2)			00.73(a)(2)(vi)			
			20.406(a)(1)(iii)			00.73(a)(2)(u)			00.73(a)(2)(vii)(A)			OTHER (Specify in Abstract below and in Test, NRC Form 266A)
			20.406(a)(1)(iv)			00.73(a)(2)(ii)			00.73(a)(2)(viii)(B)			
20.406(a)(1)(v)			00.73(a)(2)(iii)			00.73(a)(2)(ix)						

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
John C. Nagle, Engineer	AREA CODE 215 841-5184

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	V1	AEM	028	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If you complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input checked="" type="checkbox"/>	<input type="checkbox"/>				

ABSTRACT (Limit to 1600 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

Abstract: 85-042

On April 2, 1985, at 2:05 p.m., with the unit in startup at two percent power, an Engineered Safety Feature (ESF) actuation occurred. Failure of the 'D' control room chlorine detector caused the normal ventilation to isolate and the 'B' train of the Control Room Emergency Fresh Air System (an ESF) to start. The sample tape in the detector instrument had broken, causing the analyzer to indicate full scale. The tape was repaired, the analyzer was tested and returned to service, and the isolation was reset. Previous occurrences have been reported as LER's 84-008, 84-010, 84-028, 84-033, 84-046, 85-029, 30 and 31. Various modifications to the detector instrument have been implemented. Several more are under investigation. There were no adverse effects.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

FACILITY NAME (1)

Limerick Generating Station
Unit 1

DOCKET NUMBER (2)

0 5 0 0 0 3 5 2

LER NUMBER (5)

YEAR

SEQUENTIAL
NUMBERREVISION
NUMBER

PAGE (3)

85

- 0 4 2

- 0 1 0

0 2 OF

0 3

TEXT (if more space is required, use additional NRC Form 366A (17))

Description of the Event:

At 2:05 p.m. on April 2, 1985, the operators received an alarm "Control Room Chlorine Isolation Initiated" and the 'B' train of Control Room Emergency Fresh Air System (an engineering safety feature) started. In order to verify the high chlorine signal, the remaining three chlorine indicators in the control room were observed, but indicated normal. Investigation determined that the sample tape of the 'D' chlorine analyzer (AE-78-016D), an MDA Scientific, Inc. Model 740 FAN, had broken.

Consequences of the Event:

Because the Main Control Room Isolation System and Emergency Filtration System responded per design, there are no adverse consequences associated with this event.

Cause of the Event:

Excess tension in the tape may be resulting from either dragging in the sensing tape case or excessive pull from the take-up reel. Also, poor tape quality as evidenced by discoloration tends to make the tape more susceptible to breakage.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1) Limerick Generating Station Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 5 2 8 5 - 0 4 2 - 0 0 0 3 OF 0 3	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Corrective Actions:

The sample tape was repaired, the analyzer tested and returned to service, and the isolation was reset.

In an attempt to mitigate poor dynamic interaction between the case and the take-up reel (i.e., dragging or excess pull) both parts on all the analyzers were replaced with improved components.

Instrument and Controls technicians have been instructed to reject tapes of poor quality prior to installation.

Since the 'D' detector has exhibited the greatest number of tape failure and the 'A' detector the least, an exchange of the 'D' with the 'A' chlorine analyzer is in the process of being approved and implemented. There are four chlorine analyzers in the Control room: A, B, C, and D. The 'A' and 'B' analyzers merely indicate high chlorine level. The 'C' and 'D' analyzers provide indication and actuate the ESF system upon a high reading. By placing the defective 'D' instrument where it cannot itself initiate an isolation, Control Room chlorine isolations resulting from tape breakage in that machine will be avoided. Also, additional performance data can be collected and analyzed to further determine the cause of increased failure of the 'D' detector.

Investigation is progressing into the possibility of modifying the system logic in order to prevent inadvertent initiations due to only one failed analyzer.

Previous Occurrences

LER's 84-008, 84-010, 84-028, 84-033, 84-046, 85-029, 85-030, and 85-031 report similar events.

PHILADELPHIA ELECTRIC COMPANY

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P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4000

May 2, 1985

Docket No. 50-352

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Washington, DC 20555

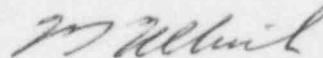
SUBJECT: Licensee Event Report
Limerick Generating Station - Unit 1

This LER deals with the automatic isolation of the main control room ventilation system due to a failed chlorine analyzer.

Reference:	Docket No. 50-352
Report Number:	85-042
Revision Number:	00
Event Date:	April 2, 1985
Report Date:	May 2, 1985
Facility:	Limerick Generating Station P.O. Box A, Sanatoga, PA 19464

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

Very truly yours,



W. T. Ullrich
Superintendent
Nuclear Generation Division

cc: Dr. Thomas E. Murley, Administrator, Region I, USNRC
J. T. Wiggins, Resident Site Inspector
See Service List

IE22
1/1

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Docket & Service Section (3 Copies)
James Wiggins
Timothy R. S. Campbell

January 16, 1985