

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3160-0104  
EXPIRES - 8/31/93

FACILITY NAME (1) Limerick Generating Station - Unit 1						DOCKET NUMBER (2) 0 5 0 0 0 3 5 2			PAGE (3) 1 OF 0 3		
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TITLE (4)  
Improper Operation of the Control Room Ventilation System

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 NAMES		DOCKET NUMBER(S)
01	24	85	85	0117	00	02	22	85			0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9) 2

POWER LEVEL (10) 0, 0, 4

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 2 (Check one or more of the following) (11)

20.402(b)	20.406(a)	80.73(a)(2)(iv)	73.71(b)
20.406(a)(1)(i)	80.36(a)(1)	80.73(a)(2)(v)	73.71(a)
20.406(a)(1)(ii)	80.36(a)(2)	80.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.406(a)(1)(iii)	80.73(a)(2)(i)	80.73(a)(2)(vii)(A)	
20.406(a)(1)(iv)	X 80.73(a)(2)(ii)	80.73(a)(2)(vii)(B)	
20.406(a)(1)(v)	80.73(a)(2)(iii)	80.73(a)(2)(viii)	
20.406(a)(1)(vi)	80.73(a)(2)(iv)	80.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
John C. Nagle, Engineer - Special Projects	2 1 5 8 4 1 - 5 1 8 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If you complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

Abstract: 85-017

On January 24, 1985, with Unit 1 at 4 percent power, the main control room ventilation system was operated outside of its design basis for a two-hour period.

The control room ventilation system inlet and outlet isolation valves had been blocked in the closed position for maintenance. The control room toilet room exhaust fan was left in operation which caused the control room atmosphere to be negative with respect to the turbine enclosure. The control room is normally maintained positive with respect to the turbine enclosure. Upon discovery of the abnormal pressure condition, the ventilation system was placed in the radiation isolation mode, which allowed the control room to return to its normal positive pressure.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		85	0 1 7	0 0	0 2	OF	0 3

TEXT (if more space is required, use additional NRC Form 364a) (17)

Description of the Event:

On January 24, 1985, at 9:30 a.m., with Unit 1 at 4 percent power, the main control room ventilation system isolation valves were placed in an alignment which allowed the control room air pressure to become negative with respect to the turbine enclosure air pressure by isolating the fresh air makeup and not isolating the toilet room exhaust. The control room is normally maintained at a slightly higher pressure than the turbine enclosure during the normal mode and radiation isolation mode of operation so that any leakage at the control room - turbine enclosure boundary will be from the control room to the turbine enclosure. A negative control room air pressure is outside of the control room atmosphere design basis since calculations for the control room habitability are based on a positive value during the normal mode of operation.

Consequences of the Event:

Since the turbine enclosure atmosphere was not contaminated at the time of the event, there were no adverse consequences. Any contaminants would have been detected and alarmed by an area radiation monitor inside the control room, and a continuous air monitor outside of the control room entrance. If the turbine enclosure atmosphere had been contaminated, the potential for drawing contaminated air into the control room existed and could have affected control room habitability. This was not likely, however, since the reactor was only at 4 percent power at the time of the event.

Cause of the Event:

At the time of the event, the control room ventilation system inlet and outlet isolation valves were blocked in the closed position for maintenance. The blocking was inadequate in that the toilet room exhaust line was not included in the block. As a result, the control room ventilation system was placed in a recirculation mode, with a small portion of the flow being exhausted through the unblocked toilet room exhaust fan, and no makeup air flow path available.

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

Failure to isolate the fan from the control room resulted in the control room pressure being pulled negative with respect to the turbine enclosure thereby placing the control ventilation system outside of its design basis.

Corrective Actions:

Upon discovery of the abnormal pressure condition at 11:30 a.m. on January 24, 1985, the control room ventilation system was immediately placed in the radiation mode of operation. This action isolated the toilet room exhaust fan from the control room and allowed the pressure differential to return to an acceptable value.

In the radiation isolation mode, filtered outside air is used to pressurize the control room. Shift operators have been advised to initiate a radiation isolation manually if a low pressure condition is observed.

A modification request has been written to install a device which will actuate an alarm when an abnormal control room/turbine enclosure pressure differential condition exists. If approved, an alarm card will be generated for this annunciator with instructions concerning how to respond to the alarm.

Additionally, the blocking sequences for the control room ventilation system will be reviewed and revised as necessary to include the toilet room exhaust fan and toilet room exhaust fan isolation valves. These revisions will be completed by June 1, 1985.

PHILADELPHIA ELECTRIC COMPANY

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PHILADELPHIA, PA. 19101

(215) 841-4000

February 22, 1985

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 concerns the operation of the control room ventilation system outside of its design basis.

Reference: Docket No. 50-352  
Report Number: 85-017  
Revision Number: 00  
Event Date: January 24, 1985  
Report Date: February 22, 1985  
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)(ii).

Very truly yours,



W. T. Ullrich  
Superintendent  
Nuclear Generation Division

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J. T. Wiggins, Senior Site Inspector  
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IE22  
1/1

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January 16, 1985