

**LICENSEE EVENT REPORT (LER)**

APPROVED OMB NO. 2180-0104  
EXPIRES - 8/31/95

FACILITY NAME (1)		DOCKET NUMBER (2)	PAGE (3)
Limerick Generating Station - Unit 1		0 1 5 0 0 0 0 3 5 2	1 0 5 0 0
TITLE (4)			

Reactor Enclosure Heating, Ventilation and Air Conditioning 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	01	85	85	041	00	05	01	85		05000	

OPERATING MODE (F)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 18CFR § (Check one or more of the following) (1)									
4		20.403 (a)		20.406 (e)		X 00.73 (a) (2) (iv)		73.71 (b)			
POWER LEVEL (dB)		000		00.30 (a) (1)		00.73 (a) (2) (v)		73.71 (c)			
		20.406 (a) (1) (i)		00.36 (a) (2)		00.73 (a) (2) (vi)		OTHER (Specify in Abstract below and in Test, NRC Form 364A)			
		20.406 (a) (1) (ii)		00.73 (a) (2) (i)		00.73 (a) (2) (vii) (A)					
		20.406 (a) (1) (iii)		00.73 (a) (2) (ii)		00.73 (a) (2) (vii) (B)					
		20.406 (a) (1) (iv)		00.73 (a) (2) (iii)		00.73 (a) (2) (viii)					
		20.406 (a) (1) (v)		00.73 (a) (2) (iv)							

LICENSEE CONTACT FOR THIS LEA (12)					
NAME	TELEPHONE NUMBER				
John C. Nagle, Engineer - Special Projects	<table border="1"> <tr> <td>AREA CODE</td> <td></td> </tr> <tr> <td>215</td> <td>841-5184</td> </tr> </table>	AREA CODE		215	841-5184
AREA CODE					
215	841-5184				

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (12)											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPS	
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SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO				

ABSTRACT (Limit to 1600 words, i.e., approximately fifteen single-space typewritten lines) (10)

Abstract: 85-041

With Unit 1 in cold shutdown, the Reactor Enclosure Heating, Ventilation and Air Conditioning (HVAC) System isolated as a result of a spurious low reactor enclosure to outside air differential pressure signal. In conjunction with the isolation, which closes the supply and exhaust dampers to the reactor enclosure HVAC system, the Standby Gas Treatment System (SBGT) and the Reactor Enclosure Recirculation System (RERS) responded correctly.

An investigation by Instrument and Control technicians and test engineers postulated a spurious opening of the current loop in the Emergency Response Facility Data System (ERFDS) portion of the circuit. The isolation was reset and neither the erratic differential pressure readings nor isolation have recurred. Efforts to reproduce the isolation have been unsuccessful.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/95

FACILITY NAME (1)

Limerick Generating Station  
Unit 1

DOCKET NUMBER (2)

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LER NUMBER (3)

YEAR

SEQUENTIAL  
NUMBERREVISION  
NUMBER

PAGE (2)

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

Description of the Event:

On April 1, 1985 at 0617 with the reactor in cold shutdown, an isolation of the Reactor Enclosure HVAC System occurred accompanied by low differential pressure annunciation, Standby Gas Treatment System and Reactor Enclosure Recirculation System initiation, and appropriate valve and damper operations.

Consequences of the Event:

This event occurred during cold shutdown when Reactor Enclosure integrity is not required by technical specifications. All systems and isolation dampers performed as designed; therefore, the consequences of this event are minimal.

Cause of the Event:

Electronic signals, correlating to a specific differential pressure between the Reactor Enclosure and the outside air are generated by two differential pressure transmitters. A two-channel logic is used to control the Reactor Enclosure differential pressure. Either channel by itself will cause an isolation of the Reactor Enclosure on low differential pressure and either of the two channels can be selected to control the differential pressure. At the time of the event, the 'B' channel was in control. During the entire time the 'A' channel was malfunctioning, the 'B' channel indicated and controlled the proper differential pressure. The isolation is believed to be caused by a faulty connection in the 'A' Reactor Enclosure differential pressure current loop intermittently opening the loop and failing the differential pressure signal to zero. During the period when the 'A' channel was malfunctioning, its output was observed to be erratic from actual differential pressure to zero differential pressure.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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 1 - 0 0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

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

During the subsequent investigation, the ERFDS portion of the circuitry was jumpered out and isolated. The indication of differential pressure returned to normal immediately; however, when ERFDS was returned to the circuit, the differential pressure indication remained normal.

Corrective Actions:

All connections in ERFDS (including plug connectors, terminal strips, and knife switches) associated with the 'A' Reactor Enclosure differential pressure current loop were cleaned and inspected.

The isolation logic was reset after an investigation by the Instrument and Control and test engineering groups. The erratic readings have not returned and efforts to reproduce the isolation have been unsuccessful. The system is being monitored for unusual responses or indications.

Previous Similar Occurrences:

These LERs involved a Reactor Enclosure HVAC isolation; however, the causes were not similar.

LER 84-014  
LER 84-029  
LER 84-041  
LER 84-045  
LER 85-005  
LER 85-012  
LER 85-018  
LER 85-020  
LER 85-023

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May 1, 1985

Docket No. 50-352

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Washington, DC 20555

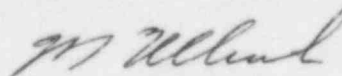
SUBJECT: Licensee Event Report  
Limerick Generating Station - Unit 1

This LER deals with an Isolation of the Reactor Enclosure Heating, Ventilation and Air Conditioning (HVAC) Systems.

Reference:	Docket No. 50-352
Report Number:	85-041
Revision Number:	00
Event Date:	April 1, 1985
Report Date:	May 1, 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)(iv).

Very truly yours,



W. T. Ullrich  
Superintendent  
Nuclear Generation Division

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J. T. Wiggins, Senior Site Inspector  
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LE22  
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January 16, 1985