

**LICENSEE EVENT REPORT (LER)**

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

FACILITY NAME (1) <b>Limerick Generating Station - Unit 1</b>										DOCKET NUMBER (2) <b>0 5 0 0 0 3 5 2</b>					PAGE (3) <b>1 OF 013</b>	
TITLE (4) <b>Reactor Full Scram in Cold Shutdown Condition</b>																
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 (8)			
<b>0 4</b>	<b>2 3</b>	<b>8 5</b>	<b>8 5</b>	<b>- 0 4 6</b>	<b>- 0 0</b>	<b>0 5</b>	<b>2 3</b>	<b>8 5</b>					<b>0 5 0 0 0</b>			
OPERATING MODE (9) <b>4</b>			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 19 CFR § (Check one or more of the following) (11)													
POWER LEVEL (10) <b>0 0 0</b>			20.402(a)			20.406(a)			20.73(a)(2)(iv)			73.71(a)				
			20.406(a)(1)(i)			20.34(a)(1)			20.73(a)(2)(v)			73.71(a)				
			20.406(a)(1)(ii)			20.36(a)(2)			20.73(a)(2)(vi)			OTHER (Specify in Abstract below and in Test, NRC Form 264A)				
			20.406(a)(1)(iii)			20.73(a)(2)(ii)			20.73(a)(2)(vii)(A)							
			20.406(a)(1)(iv)			20.73(a)(2)(iii)			20.73(a)(2)(viii)(B)							
			20.406(a)(1)(v)			20.73(a)(2)(iv)			20.73(a)(2)(ix)							
LICENSEE CONTACT FOR THIS LER (12)																
NAME <b>John C. Nagle, Engineer</b>										TELEPHONE NUMBER AREA CODE <b>2 1 5</b> <b>8 4 1 - 5 1 8 4</b>						
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>A</b>																
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR		
YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO <input type="checkbox"/>																
ABSTRACT (Limit to 1000 spaces, i.e., approximately fifteen single-space typewritten lines) (16)																
<b>Abstract: 85-C46</b>  On April 23, 1985, with Unit 1 in cold shutdown with all control rods in, a reactor full scram signal occurred. Cause of the event was failure to properly remove a reactor level instrument from service. A differential pressure developed in the instrument's sensing chambers as the result of a closed equalizer valve and a leaking instrument fitting. The differential pressure developed approximately three hours after the instrument was valved out-of-service and was sufficient to generate a Channel B2 scram signal. This signal was generated at the same time that a surveillance test was being performed on the Channel A2 scram logic. Generation of an A2 and a B2 scram signal completed the logic required for a full scram.																

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104  
EXPIRES 6/31/95

FACILITY NAME (1) Limerick Generating Station Unit 1	DOCKET NUMBER (2) 0500035285	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		85	046	00	02	OF	03

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

Description of the Event:

On April 23, 1985, at 3:24 a.m., with Unit 1 in cold shutdown, a reactor full scram signal occurred. A surveillance test being performed at the time of the event produced a scram signal on RPS Channel A2 and improper removal of an instrument from service produced a scram signal on RPS Channel B2 thereby completing the logic required for a full scram signal. At 3:46 a.m., the improper instrument valve configuration was discovered and corrected thereby enabling the Channel B scram signal to be reset.

Consequences of the Event:

The Reactor Protection System operated properly. There were no adverse consequences.

Cause of the Event:

At the time of the event, Instrument and Controls technicians were performing a surveillance test on the 'C' Intermediate Range Monitor (IRM). By procedure, a Channel A2 scram signal was generated during performance of the test.

Prior to the event, at 12:05 a.m., reactor water level transmitter LT-42-1N080D was valved out-of-service for maintenance. The high pressure side and low pressure side instrument valves were closed to isolate the instrument from the process, but the equalizer valve was not opened. Due to a leaking fitting on the instrument's vent line, a differential pressure developed that was sufficient to generate a Channel B2 reactor low level scram signal at 3:24 a.m. The B2 signal from LT-42-1N080D, combined with the A2 signal from IRM 'C', produced the full scram.

## 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 (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 5	0 4 6	0 0	0 3	OF	0 3

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

Cause of the event was failure to properly remove reactor water level transmitter LT-42-1N080D from service. The equalizer valve should have been opened to prevent a differential pressure from developing in the instrument's sensing chambers; however, since the equalizer valve did not appear on the blocking permit, the equalizer valve was not opened when the instrument was removed from service. The blocking permit did not list the equalizer valve because the permit preparer did not recognize the potential of the leaking fitting creating a differential pressure within the level transmitter to generate the Channel B2 reactor low level scram signal resulting in the scram condition.

Corrective Actions:

An Instruments and Controls Test Matrix identifies the instruments that provide input to the Reactor Protection System and the Nuclear Steam Supply Shutoff System. The Blocking Coordinators have been instructed to make use of this operator aid and request assistance from the Instruments and Controls engineering staff when preparing complicated instrument block instructions.

Additionally, an improved operator aid is being developed for future use in determining potential impact of blocking instrumentation and possible need for technical assistance from the engineering staff.

Previous Similar Occurrence:

No events having similar root causes have been reported.

PHILADELPHIA ELECTRIC COMPANY

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May 23, 1985

Docket No. 50-352

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Washington, DC 20555

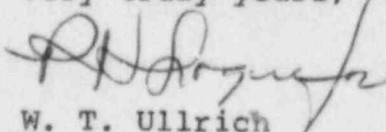
SUBJECT: Licensee Event Report  
Limerick Generating Station - Unit 1

This LER concerns a Unit 1 full scram signal with all control rods in and the reactor in the cold shutdown condition.

Reference:	Docket No. 50-352
Report Number:	85-046
Revision Number:	00
Event Date:	April 23, 1985
Report Date:	May 23, 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

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

IE22  
11

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January 16, 1985