

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Limerick Generating Station Unit 1 DOCKET NUMBER (2) 050003521 OF 04 PAGE (3)

TITLE (4) Limerick Start of an Emergency Diesel Generator due to Personnel Error during Troubleshooting of the Test Start Circuitry

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)
04	18	88	88	015	00	05	18	88			05000
											05000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5 (Check one or more of the following) (11)

OPERATING MODE (8) <u>4</u>	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
POWER LEVEL (10) <u>000</u>	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
<u>Charles A. Mengers, Senior Engineer, Licensing Section</u>	<u>215 841-5184</u>

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 yes, 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: 88-015

On April 18, 1988 at 1009 hours with the unit shutdown, the D14 emergency diesel generator auto-started in the test mode due to an unplanned test start signal. This event was caused by a personal error and is reportable as an Engineered Safety Feature actuation. Immediately prior to the event, a utility Field Engineer was examining the emergency diesel generator (EDG) test start circuitry in the diesel generator bay. The engineer proceeded to measure the voltage across the Test Start Relay (TSRX) seal-in contacts without the prior Operations Staff approval required by Administrative Procedures. The test meter was incorrectly set and drew enough current to simulate closure of the contacts and actuate the Test Start Relay. The EDG was returned to the standby mode at 1500 hours. The consequences of this event were minimal because the unplanned start did not affect the EDG's ability to respond to a Loss of Offsite Power accident.

A memorandum has been issued to all Field Engineers requiring the use of a Troubleshooting Control Form when performing activities which even remotely have potential for impact on operations.

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

Plant Conditions Prior to the Event:

Operating Mode 4 (Cold Shutdown)
 Reactor Power 0%
 Scheduled two week outage in progress

Description of the Event:

On April 18, 1988 at 1009 hours the D14 emergency diesel generator auto-started in the test mode due to an unplanned test start signal which resulted from a personal error while troubleshooting. This event is reportable as an Engineered Safety Feature actuation.

Immediately prior to the event, a utility Field Engineer was examining the emergency diesel generator (EDG) test start circuitry in the diesel generator bay. The engineer proceeded to measure the voltage across the Test Start Relay (TSRX) seal-in contacts without prior Operations Staff approval. The test meter was incorrectly set and drew enough current to simulate closure of the contacts and actuate the Test Start Relay. The engineer did not recognize his error had simulated a test start signal and exited the diesel generator bay prior to the EDG start. The EDG started in the normal test sequence which includes a three minute prelube, auto-start and acceleration to the idle speed of 900 rpm. After the control room received the EDG start, the engine speed was maintained at 900 rpm idle speed while test engineers inspected the EDG start relay positions and Operations discussed the event with Field Engineering. At 1150 hours the EDG was verified to be in the test mode. Prior to securing the EDG, Operations loaded the EDG to 2850 kW for 3 hours in accordance with vendor's recommendations. The EDG was returned to OPERABLE status and placed in standby mode by 1500 hours on April 18, 1988.

Consequences of the Event:

Although an unplanned EDG initiation occurred, it did not affect the EDG's ability to respond to a Loss of Offsite Power accident. Additionally, the other three EDGs dedicated to Unit 1 remained operable during this event. The EDG started in the normal test

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

sequence which includes a three minute prelube, auto-start, and acceleration to idle speed of 900 rpm. The EDG experienced no mechanical or electrical damage as a result of this event.

Cause of the Event:

The cause for the unplanned EDG start was a personal error by a utility Field Engineer. The engineer failed to follow Administrative Procedure A41.1, "Troubleshooting Safety Related and Tech Spec Equipment" which requires prior approval by Operations via a Troubleshooting Control Form (TCF), before troubleshooting safety related or technical specification equipment. When the engineer incorrectly performed the measurement, the test meter drew enough current to simulate closure of the test start switch contacts and cause the subsequent EDG start.

Corrective Actions:

The EDG was determined to be in the test mode at 1150 hours. Operations loaded the EDG to 2850 kW for 3 hours in accordance with vendor's recommendations. The EDG was shutdown and returned to OPERABLE status and placed in the standby mode by 1500 hours on April 18, 1988.

Actions Taken to Prevent Recurrence:

This event was caused by the failure to follow directions. The Engineer should be disciplined. Field Engineer supervision has issued a training memorandum to all Field Engineers requiring a TCF to be utilized when performing activities which even remotely have potential for impact on operations. The memorandum also advised Field Engineers of potential dangers when using volt-ohmmeters in energized circuits.

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

EIIS Codes:

The code for the emergency onsite electric power supply system is EK. The codes for the components discussed in this report are:

DG - Emergency Diesel Generator

RLY - Relay

EI - Voltmeter

Previous Similar Occurrences:

LGS LER 85-052 reported an inadvertent start of the D13 emergency diesel generator.

Tracking Codes: A1, Failure to Follow Administrative Procedures

PHILADELPHIA ELECTRIC COMPANY

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10 CFR 50.73

(215) 841-4000

May 18, 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 concerns an unplanned start of an Emergency Diesel Generator, an Engineered Safety Feature, due to a personal error while examining the test start circuitry.

Reference: Docket No. 50-352
Report Number: 88-015
Revision Number: 00
Event Date: April 18, 1988
Report Date: May 18, 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)(iv).

Very truly yours,



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

cc: W. T. Russell, Administrator, Region I, USNRC
T. J. Kenny, USNRC Senior Resident Inspector

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