

LICENSEE EVENT REPORT (LER)

APPROVED OMS NO. 3180-D104 EXPIRES 8/31/83

FACILITY NAME (1) Limerick Generating Station - Unit 1

DOCKET NUMBER (2) 050003521 OF 03

TITLE (4) Actuation of Engineered Safety Features

Table with columns for EVENT DATE (8), LER NUMBER (6), REPORT DATE (7), and OTHER FACILITIES INVOLVED (8). Includes sub-columns for MONTH, DAY, YEAR and FACILITY NAMES, DOCKET NUMBER(S).

Table for THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11). Includes checkboxes for 20.402(a) through 20.406(a)(1)(i) and 90.73(a)(2)(i) through 90.73(a)(2)(v).

LICENSEE CONTACT FOR THIS LER (12) NAME: John C. Nagle, Senior Engineer, Licensing Section. TELEPHONE NUMBER: 215 841-5184.

Table for COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13). Columns include CAUSE, SYSTEM, COMPONENT, MANUFAC-TURER, REPORTABLE TO NRC, and shaded areas.

SUPPLEMENTAL REPORT EXPECTED (14) YES (if you complete EXPECTED SUBMISSION DATE) [X] NO. EXPECTED SUBMISSION DATE (15) MONTH, DAY, YEAR.

ABSTRACT (Limit to 1400 words, i.e., approximately 10 lines single spaced typewritten text) (16)

Abstract: 85-088

On November 12, 1985 at 1446 hours with Unit 1 at 70 percent power, a spurious half-scrum signal on the 'B' Reactor Protection System (RPS) channel occurred along with the isolation of various Nuclear Steam Supply Shutoff System (NSSSS) subsystems. The event resulted from a temporary loss of power to the 1B Reactor Protection System and Uninterruptible Power Supply (UPS) 120 VAC Distribution Panel No. 1BY160, during the performance of a surveillance test. An output breaker for the 'B' RPS/UPS static inverter tripped when an underfrequency relay actuated due to jarring caused by the re-installation of a test block cover. The RPS and NSSSS systems performed as designed during the loss of power transient. The isolations were verified, the underfrequency relay was reset, and power was restored to the affected loads.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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 8 5	SEQUENTIAL NUMBER - 0 18 8	REVISION NUMBER - 0 0	0 2	OF 0 3

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

Unit Conditions Prior to the Event:

Mode 1 (Run)
Reactor Power 70%
Power Ascension Testing In Progress

Description of the Event:

On November 12, 1985 at 1446 hours, one of the series output breakers for the 'B' Reactor Protection System (RPS) and Uninterruptible Power Supply (UPS) static inverter tripped during the performance of surveillance test ST-2-36-624-1, "RPS-Electric Power Monitor Channel 'D' Functional Test." An underfrequency relay actuated during step 7.1.5(b) which requires re-installation of the test block cover. The underfrequency relay actuation caused the output breaker 52-DY-24801 for the 'B' RPS/UPS static inverter to trip and de-energize 120 VAC Distribution Panel No. 1BY160. This loss of power caused the following conservative protective actions to occur. A half-scream signal on the 'B' RPS channel occurred and Nuclear Steam Shutoff Supply System (NSSSS) Group II, III, VI, VII, and VIII isolation signals were generated. The Drywell Chilled Water system, Primary Containment Instrument Gas, Reactor Water Cleanup (RCU) system, and Reactor Enclosure Ventilation system isolated as a result of these signals. The Standby Gas Treatment System initiated and the plant process and area radiation monitors de-energized.

The EIIS codes for the affected systems are JC and JM.

Consequences of the Event:

The RPS and NSSSS performed as designed during the loss of power transient. The RCU system was returned to service within 65 minutes of the event. There was no detrimental effect on reactor water chemistry due to the temporary loss of the RCU system. There were no adverse consequences resulting from the isolations of the Drywell Chilled Water, Primary Containment Instrument Gas, and Reactor Enclosure Ventilation systems.

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Cause of the Event:

The underfrequency relay actuated and caused breaker 52-DY-24801 to trip when a technician re-installed the test block cover on the panel upon which the relay is mounted. Jarring of the panel during re-installation of the test block cover caused the underfrequency relay to actuate. This event was a result of the lack of recognition of the sensitivity of this type of relay to sudden movement.

Corrective Actions:

All of the isolations were confirmed and the underfrequency relay was reset. The half-scrum signal was reset by procedure. The systems were returned to service using general procedure GP-8, "Primary and Secondary Containment Isolation Verification and Reset."

Action Taken to Prevent Recurrence:

The technicians who were or might be involved in this activity were counseled on the sensitivity of relays. A cautionary tag, which states the test block cover requires careful re-installation, was attached to the cover.

Previous Similar Occurrences:

Limerick LER 85-052 reported an inadvertent motor start of an emergency diesel generator which resulted from a relay actuation due to an output breaker compartment door being struck.

PHILADELPHIA ELECTRIC COMPANY

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December 19, 1985

Docket No. 50-352

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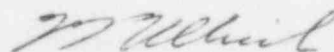
SUBJECT: Licensee Event Report
Limerick Generating Station - Unit 1

This LER concerns Nuclear Steam Supply Shutoff System isolations (Engineered Safety Features) resulting from a temporary loss of power to the 1B Reactor Protection System and Uninterruptible Power Supply 120V Panel.

Reference: Docket No. 50-352
Report Number: 85-088
Revision Number: 00
Event Date: November 12, 1985
Report Date: December 19, 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). The submittal of this LER is delayed as a result of the time necessary to review the contents of this report. We regret any inconvenience the delay may have caused.

Very truly yours,



W. T. Ullrich
Superintendent
Nuclear Generation Division

cc: Dr. Thomas E. Murley, Administrator, Region I, USNRC
E. M. Kelly, Senior Resident Site Inspector
See Service List

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