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PECO ENERGY

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10CFR 50.73

February 9, 1996
Docket No. 50-352
License No. NPF-39

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: Licensee Event Report
Limerick Generating Station - Unit 1

This LER reports an automatic isolation of the Unit 1 Reactor Core Isolation Cooling (RCIC) system due to an inadvertent Primary Containment and Reactor Vessel Isolation Control System isolation signal. This constitutes an automatic Engineered Safety Feature actuation. The RCIC system steam supply line inboard primary containment isolation valve automatically closed during surveillance testing due to less than adequate attention to detail by a technician.

Reference:	Docket No. 50-352
Report Number:	1-96-001
Revision Number:	00
Event Date:	January 11, 1996
Report Date:	February 9, 1996
Facility:	Limerick Generating Station P.O. Box 2300, Sanatoga, PA 19464-2300

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(iv).

Very truly yours,

Robert W Boyce

GHS

cc: T. T. Martin, Administrator Region I, USNRC
N. S. Perry, USNRC Senior Resident Inspector, LGS

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NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Limerick Generating Station - Unit 1	05000352	1 OF 4

TITLE (4) Automatic Isolation of the Reactor Core Isolation Cooling System During Surveillance Testing Due to Less Than Adequate Attention to Detail

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
										05000
01	11	96	96	-- 001 --	00	02	09	96	FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	1
POWER LEVEL (10)	89

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

20.402(b)		20.405(c)	X	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)	OTHER
20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)	
20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
J. L. Kantner, Manager - Experience Assessment, LGS	(610)718-3400

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

At 1820 hours on 01/11/96, during preparations for surveillance testing of the Reactor Core Isolation Cooling (RCIC) system, an automatic isolation of the RCIC system occurred due to an inadvertent Primary Containment and Reactor Vessel Isolation Control System isolation signal. This constitutes an Engineered Safety Feature actuation. Immediate investigation revealed that two Instrumentation and Controls (I&C) technicians were performing different Surveillance Test (ST) procedures simultaneously. The ST procedures were suspended, and the RCIC system was restored to an operable status by 1900 hours. There were no adverse consequences as a result of the RCIC system isolation. The cause of this event was personnel error due to less than adequate attention to detail by one of the technicians involved in the event. Corrective actions include counselling of the involved technician and team meetings to discuss this event.

Unit Conditions Prior to the Event:

Unit 1 was in Operational Condition 1 (Power Operation) at 89.7% power level in end of cycle coastdown.

Functional testing of the Primary Containment and Reactor Vessel Isolation Control System (PCRVICS, EIIS:JM) for the Reactor Core Isolation Cooling (RCIC, EIIS:BN) system steam supply line primary containment isolation valves (PCIVs) was in progress at the time of this event.

Description of the Event:

On January 11, 1996, two Instrumentation and Controls (I&C) technicians were preparing to perform Surveillance Test (ST) procedures ST-2-049-603-1, "NSSSS - RCIC Steam Line D/P HI DIV I, Channel A, Functional Test," and ST-2-049-604-1, "NSSSS-RCIC Steam Line D/P HI Div 3, Channel C, Functional Test." Procedure ST-2-049-603-1 (i.e., the 603 test) involves testing the RCIC system steam supply line outboard PCIV (EIIS:ISV) whereas procedure ST-2-049-604-1 (i.e., the 604 test) involves testing the RCIC system steam supply line inboard PCIV. One I&C technician was located in the Auxiliary Equipment Room (AER), while a second I&C technician was located in the Main Control Room (MCR).

The MCR I&C technician requested authorization from Operations personnel to perform both the 603 test and the 604 test. The Unit 1 Reactor Operator (RO) granted authorization to perform only one test at a time, and entered the 603 test in the Unit 1 ST log. The MCR I&C technician commenced performance of the prerequisites in accordance with the 603 test.

Once the prerequisites were completed, the AER I&C technician began performing switch manipulations at the 10C640 panel in the AER and observed proper indications and responses. However, at 1820 hours on January 11, 1996, the MCR I&C technician noted an unexpected status light, and the MCR Shift Supervisor and the Unit 1 RO noticed that the RCIC system steam supply line inboard PCIV, HV-049-1F007, had automatically closed on a high steam line differential pressure isolation signal. The unexpected automatic isolation of the RCIC system due to a simulated PCRVICS isolation signal constitutes an Engineered Safety Feature (ESF) actuation.

Immediate investigation revealed that the MCR I&C technician was performing the 603 test while the AER I&C technician was performing the 604 test. MCR Operations personnel directed the I&C technicians to suspend performance of both ST procedures and return the RCIC system to its pre-test condition. At 1825 hours, the isolation signal was reset in accordance with General Plant (GP) procedure GP-8, "Primary and Secondary Containment Isolation Verification and Reset," and the RCIC system was declared operable by 1900 hours on January 11, 1996.

At 2031 hours on January 11, 1996, a 4-hour notification was made to the NRC pursuant to the requirements of 10CFR50.72(b)(2)(ii), since this event resulted in an automatic ESF actuation. This report is being submitted in accordance with the requirements of 10CFR50.73(a)(2)(iv).

Analysis:

There was no release of radioactive material to the environment or adverse consequences as a result of the RCIC system isolation. Valve HV-049-1F007 isolated as designed in response to the simulated high steam line differential pressure isolation signal. The RCIC system was isolated for approximately 40 minutes. Had this event occurred during an accident condition, sufficient system redundancy existed to mitigate the consequences of an accident.

Cause of the Event:

The cause of this event was personnel error due to less than adequate attention to detail by the MCR I&C technician. Prior to the performance of the ST procedures, both technicians agreed that the 604 test would be performed first. However, when receiving authorization from Operations to perform the surveillance testing, the MCR I&C technician acknowledged that the Unit 1 RO signed on to the 603 test but failed to recognize that this was not the test to be performed first as previously agreed upon with the AER I&C technician.

The RCIC system isolation occurred because the MCR I&C technician opened the electrical feed for the RCIC system outboard PCIV, HV-049-1F008, in accordance with the 603 test prerequisites rather than opening the electrical feed for the inboard PCIV, HV-049-1F007, in accordance with the 604 test prerequisites. The purpose of this

prerequisite is to preclude the associated valve from stroking closed when the simulated isolation signal is generated during testing.

A barrier that may have prevented the RCIC system isolation from occurring is better three-part communications between the I&C technicians in that, once the prerequisites were completed and the actual testing commenced, there were several opportunities through the ongoing communications to identify that they were performing different ST procedures.

Corrective Actions:

The I&C technician involved in this event was counselled regarding the need for attention to detail and the use of self check.

Both I&C technicians involved in this event will lead team meetings to discuss the event with all I&C technicians. These meetings will address what should have taken place to avoid the type of error described in this event. These meetings are expected to be completed by March 29, 1996.

The current expectations and associated training for use of three-part communications during surveillance testing will be reviewed for enhancement. This review is expected to be completed by March 29, 1996.

Previous Similar Occurrences:

There have been previous Limerick Generating Station (LGS) LERs which involved inadequate attention to detail by individuals performing ST procedures; however, there were no repeat events with respect to the specific ST procedures or individuals involved with this event.