

PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION

P. O. BOX A

SANATOGA, PENNSYLVANIA 19464

(215) 327-1200 EXT. 2000

April 15, 1992

Docket Nos. 50-352

50-353

License Nos. NPF-39

NPF-85

J. DOERING, JR.
PLANT MANAGER
LIMERICK GENERATING STATION

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

SUBJECT: Licensee Event Report
Limerick Generating Station - Units 1 and 2

This LER reports automatic actuations of the Unit 1 and Unit 2 Primary Containment and Reactor Vessel Isolation Control System, an Engineered Safety Feature. These actuations occurred after a chemistry technician inadvertently entered incorrect high radiation trip setpoint values into the Radiation and Meteorological Monitoring System computer.

Reference: Docket Nos. 50-352
50-353
Report Number: 1-92-003
Revision Number: 00
Event Date: March 21, 1992
Report Date: April 15, 1992
Facility: Limerick Generating Station
P.O. Box 2300, Sanatoga, PA 19464-0920

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

Very truly yours,

DMS:cah

cc: T. T. Martin, Administrator, Region I, USNRC
T. J. Kenny, USNRC Senior Resident Inspector, LGS

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PDR ADDCK 05000352
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LICENSEE EVENT REPORT (LER)

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

TITLE (4) Engineered Safety Feature actuation occurred after a chemistry technician inadvertently entered incorrect values into the Radiation and Meteorological Monitoring System computer.

EVENT DATE (5)			LER NUMBER			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REGION NUMBER	MONTH	DAY	YEAR	FACILITY NAME		DOCKET NUMBER(S)
03	21	92	92	003	00	04	15	92	Limerick, Unit 2		0 5 0 0 0 3 5 1 3
											0 5 0 0 0 1 1 1

OPERATING MODE (9) 4
 THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50 (Check one or more of the following) (11)
 20.405(a) 50.73(a)(2)(iv) 73.71(b)
 20.405(a)(1)(ii) 50.38(a)(1) 73.71(b)
 20.405(a)(1)(iii) 50.38(a)(2) 50.73(a)(2)(iv) OTHER (Specify in Abstract below and in Part 4 of Form 306A)
 20.405(a)(1)(iv) 50.73(a)(2)(ii) 50.73(a)(2)(iii)(A)
 20.405(a)(1)(v) 50.73(a)(2)(ii) 50.73(a)(2)(iii)(B)
 20.405(a)(1)(vi) 50.73(a)(2)(iii) 50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER (12)
 NAME: G. J. Madsen, Regulatory Engineer, Limerick Generating Station
 TELEPHONE NUMBER: 215 327-1120
 AREA CODE: 215

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

CAUSE	SYSTEM	COMPONENT	AC POWER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

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 17 lines single spaced typewritten lines) (16)

On March 21, 1992, an actuation of the Unit 1 and Unit 2 Primary Containment and Reactor Vessel Isolation Control System (PCRIVICS), an Engineered Safety Feature (ESF), occurred. The ESF actuation resulted after a chemistry technician inadvertently entered incorrect high radiation trip setpoint values into the Radiation and Meteorological Monitoring System (RMMS) computer, while performing a Surveillance Test (ST) procedure. As a result, an alarm on the RMMS computer sounded, and the Unit 1 and Unit 2 Primary Containment purge supply and exhaust valves received a signal to isolate. However, these PCRIVICS valves were already closed and no valve movement occurred. The technician identified his error, entered the correct values, reset the RMMS computer alarm, and Operations personnel reset the PCRIVICS isolation signal. The consequences were minimal in that there was no actual elevated radiation condition and the RMMS computer and PCRIVICS isolation valves functioned as designed. The cause of this event was personnel error due to a procedure deficiency resulting in a misinterpretation of an example in the ST procedure. The chemistry technician was counseled regarding procedural compliance, a memorandum was issued to chemistry personnel concerning the prevention of personnel errors, and a chemistry technician group meeting was conducted at which the memorandum and this event were discussed. Also, the ST procedure will be revised, and a review of chemistry procedures will be performed to determine if other similar deficiencies exist.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Limerick Generating Station, Unit 1	01810003512	92	003	00	02	OF 04

TEXT IN THIS SPACE IS REQUIRED, USE ADDITIONAL NRC Form 365A (11/77)

Unit Conditions Prior to the Event:

Unit 1 was in Operational Condition 4 (Cold Shutdown) at 0% power level. Purging of the Unit 1 Primary Containment was complete, and a chemistry technician was completing Surveillance Test (ST) procedure ST-5-057-810-0, "North Stack Containment Purge Sampling and Analysis."

Unit 2 was in Operational Condition 1 (Power Operations) at 100% power level.

There were no structures, systems or components out of service which contributed to this event.

Description of the Event:

On March 21, 1992, at 1655 hours, an inadvertent actuation of the Primary Containment and Reactor Vessel Isolation Control System (PCR/VICS) (E11S:JM), an Engineered Safety Feature (ESF), occurred. The ESF actuation resulted after a chemistry technician, working in the Main Control Room (MCR), inadvertently entered incorrect Wide Range Accident Monitor (WRAM) high radiation trip setpoint values into the Radiological Radiation and Meteorological Monitoring System (RMMS) (E11S:IL) computer, while performing procedure ST-5-057-810-0.

At 1655 hours, after the chemistry technician entered the incorrect values, an alarm on the RMMS computer sounded, indicating a potential RMMS problem. The chemistry technician then discovered that he had inadvertently entered incorrect values into the RMMS computer. At 1700 hours, the technician entered the correct values, and the technician reset the RMMS computer alarm. The ST was then completed and the chemistry technician left the MCR to obtain the required review and approval for closure of the ST. However, unbeknownst to the chemistry technician, the MCR annunciator, "Wide Range Accident Monitor Hi-Hi Rad," alarmed in conjunction with the RMMS computer alarm at 1655 hours, indicating that the WRAM high radiation trip setpoint had been exceeded. This caused the Unit 1 and Unit 2 Primary Containment purge supply and exhaust valves to receive a signal to isolate. Since these PCR/VICS valves were already in their normally closed position, no valve movement occurred. An investigation of this annunciator alarm by MCR Operations personnel, which involved contacting the chemistry technician, revealed that the PCR/VICS actuation occurred when the incorrect WRAM high radiation trip setpoint values were entered into the RMMS computer. At 1743 hours, MCR Operations personnel reset the isolation signal to the PCR/VICS valves in accordance with General Plant (GP) procedure GP-8, "Primary and Secondary Containment Isolation Verification and Reset."

A four hour notification was made to the NRC at 1955 hours, on March 21, 1992, in accordance with the requirements of 10CFR50.72(b)(2)(ii) since this event resulted in an automatic actuation of an ESF. This LER is being submitted in accordance with the requirements of 10CFR50.73(a)(2)(iv).

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		YEAR 9 2	SEQUENTIAL NUMBER 0 0 3	REVISION NUMBER 0 1	

TEXT IF more space is required, use additional NRC Form 366A's (11)

Analysis of the Event:

The consequences of this event were minimal. There was no actual elevated radiation condition and no release of radioactive material to the environment as a result of this event. The RMMS computer and the PCRVICES isolation valve functioned as designed following the input of the incorrect WRAM high radiation trip setpoint values. The affected PCRVICES isolation valves were in their normally closed position prior to and during this event, and therefore, no valve movement occurred. Additionally, the isolation signal was expeditiously reset in accordance with plant procedures, thereby preventing any potential adverse impacts on plant systems.

Cause of the Event:

The cause of this event was personnel error due to a procedure deficiency resulting in a misinterpretation of an example in the ST procedure. After purging of the Unit 1 Primary Containment was completed, the ST procedure directed the chemistry technician to reset the WRAM high radiation trip setpoint values to the "as found" values, which always have positive exponents. During restoration of the setpoint values, the chemistry technician was misled by an example in the ST procedure, which showed how to enter the values using negative exponents. The chemistry technician followed the example and entered the appropriate numbers, however, he used a negative instead of a positive exponent.

Corrective Actions:

The following corrective actions have been taken or are planned.

1. The chemistry technician involved in this event was counseled regarding attention to detail and the requirements of procedural compliance.
2. On March 23, 1992, a memorandum was issued to all plant chemistry personnel concerning the prevention of personnel errors. This memorandum emphasized the requirement of procedural compliance, attention to detail, and the need to perform 'self checks' during work activities.
3. On March 25, 1992, a chemistry technician group all hands meeting was conducted. The information contained in the memorandum stated above, and a discussion of the lessons learned from this event were presented at the meeting.
4. Procedure ST-5-057-810-0 is expected to be revised by April 30, 1992 to:
 - o clarify the example for entry/restoration of the WRAM high radiation setpoint values, and
 - o incorporate a caution statement which alerts chemistry technicians of the potential consequences when incorrect exponents are entered.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Limerick Generating Station, Unit 1	DOCKET NUMBER (2) 0 15 10 10 0 3 5 12	LER NUMBER (3)			PAGE (3)	
		YEAR 9 2	SEQUENTIAL NUMBER 0 0 3	REVISION NUMBER 0 0	OF	

TEXT (if more space is required, use additional NRC Form 366A's/117)

5. A review of the chemistry department procedures will be performed to determine if other similar deficiencies exist. This review is expected to be completed by June 1, 1992, and appropriate actions will be implemented as necessary.
6. Similar procedures performed by plant groups other than the chemistry department were evaluated. This evaluation concluded that a similar procedural deficiency does not exist, and adequate training and procedural guidance exists to preclude the recurrence of a similar event.

In addition to the corrective actions stated above, the following action will be implemented.

- o The training program for chemistry technicians presently instructs technicians to notify MCR personnel when an error is made during the performance of an ST. However, to further emphasize the importance of this issue, the lessons learned from this event will be incorporated into the chemistry technician continuing training program.

Previous Similar Occurrences:

None

Tracking Codes: D Procedure Deficiency
A2 Failure to Follow Implementing Procedures