

PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION
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J. DOERING, JR.
 PLANT MANAGER
 LIMERICK GENERATING STATION

July 17, 1992

Docket No. 50-353
 License No. HPF-85

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

SUBJECT: Licensee Event Report
Limerick Generating Station - Unit 2

This LER reports a condition prohibited by Technical Specifications (TS) when the Unit 2 Reactor Enclosure Secondary Containment low differential pressure isolation instrumentation was inoperable and the required TS ACTIONS were not completed within the required time. This condition occurred due to a personnel error with contributing causal factors of task interruption and a design deficiency.

Reference: Docket No. 50-353
 Report Number: 2-92-007
 Revision Number: 00
 Event Date: June 24, 1992
 Report Date: July 17, 1992
 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)(i)(B).

Very truly yours,

J. A. Marty for

J. Doering, Jr.
 Plant Manager

DBN:cah

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

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LICENSEE EVENT REPORT (LER)

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

TITLE (4) **Tech Spec Violation with Reactor Enclosure Secondary Containment Low Differential Pressure Isolation Instrumentation Inoperable due to Personnel Error and Design Deficiency.**

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)
06	24	92	92	007	00	07	17	92			0 5 0 0 0
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THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check one or more of the following) (11)

OPERATING MODE (9) 1	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 1, 0, 0	20.405(a)(1)(i)	50.35(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.38(c)(2)	50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(iii)	50.73(a)(2)(vii)(A)	
	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)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME **G. J. Madsen, Regulatory Engineer, Limerick Generating Station** TELEPHONE NUMBER **2 1 5 3 2 7 - 1 2 0 0**

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS

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)

On June 24, 1992, a Main Control Room (MCR) licensed Chief Operator (CO) was resetting a Unit 2 Reactor Enclosure (RE) Secondary Containment (SC) isolation per System (S) operating procedure S76.8.B, "Initiation of Reactor Enclosure or Refuel Floor Secondary Containment Isolation." Later that shift, the CO discovered that he had failed to return the 'A' and 'B' RE Isolation Valve Reset Switches back to their as-found "AUTO" position as directed by the procedure. The RE SC low differential pressure (dP) isolation actuation instrumentation was bypassed, and therefore inoperable, for a period of 4 hours and 12 minutes while the Reset Switches were in the "Reset" position. Because the required Technical Specifications (TS) Actions were not taken in the specified time period, this event resulted in a condition prohibited by TS. The actual consequences of this event were minimal in that no operating transients occurred requiring actuation of the RE SC low dP isolation. The primary cause of the event was personnel error. Contributing factors were task interruption and a design deficiency in an alarm that could have alerted the operator of the problem. The CO involved in this event was counseled. Procedure S76.8.A will be revised to have cautions included regarding the consequences of placing the 'A' and 'B' RE Isolation Valve Reset switches in the "Reset" position. A temporary change to the plant will be installed to provide alarm annunciation capability depending on current plant conditions.

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

Unit Conditions Prior to the Event:

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

Prior to the event, the Unit 2 Reactor Enclosure Secondary Containment was in the isolation mode with the Standby Gas Treatment System (SGTS; EIIS:BM) and the Reactor Enclosure Recirculation System (RERS; EIIS:VA) in operation to support testing.

Description of the Event

On June 24, 1992, a Main Control Room (MCR) licensed Chief Operator (CO) was resetting a Unit 2 Reactor Enclosure (RE) Secondary Containment Isolation per System (S) operating procedure S76.8.B, "Initiation of Reactor Enclosure or Refuel Floor Secondary Containment Isolation." The CO secured the 'B' train of the SGTS and the 'B' train of the RERS at 1845 hours and restarted the Unit 2 normal RE Heating, Ventilation, and Air Conditioning (HVAC) system at 1849 hours in accordance with procedure S76.1.B, "Startup of Reactor Enclosure HVAC," as directed by procedure S76.8.B, step 8.3.7. At 2257 hours, while performing panel walkdowns during shift turnover, the same CO discovered that he had failed to return the 'A' and 'B' RE Isolation Valve Reset Switches, HS-76-279A/B, back to their as-found "Auto" positions as directed by procedure S76.8.B, step 8.3.8. The CO immediately returned the reset switches from the "Reset" to the "Auto" position upon discovery. With the Reset Switches in the "Reset" position, both channels of the RE Secondary Containment low differential pressure (dP) isolation actuation instrumentation are bypassed, and therefore inoperable. This condition existed for a period of 4 hours and 12 minutes.

Technical Specifications Section 3.3.2, "Isolation Actuation Instrumentation," requires that at least one trip system be placed in the tripped condition and that the SGTS be placed in service within one hour of the 'A' and 'B' RE Secondary Containment low dP Isolation Trip systems becoming inoperable. Because the required TS Actions were not taken in the specified time period, this event resulted in a condition prohibited by TS. Therefore, this report is being submitted in accordance with the requirements of 10 CFR 50.73(a)(2)(i)(B).

Analysis of the Event:

The actual consequences of this event were minimal in that no operating transient occurred requiring actuation of the RE Secondary Containment low dP isolation. There was no release of radioactive material to the environment as a result of this event.

During the time that the 'A' and 'B' RE Isolation Valve Reset Switches were in the 'Reset' position, the Unit 2 RE Secondary Containment low dP isolation capability was bypassed. However, alarm window B-3 of MCR panel 219 which reads, "RE Low Delta P/ Loss of Power/Inop," was operational at the time of the

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

event and would have alarmed had a low gP condition developed. The CO would have been alerted to the low g_i condition and would have taken actions to determine the cause and to correct the situation. The CO therefore, would have known when an isolation should have occurred and would have taken the appropriate actions to initiate an isolation had it failed to occur automatically.

Cause of the Event:

The primary cause of the event was personnel error in that the CO failed to complete step 8.3.8 of procedure S76.8.B after restarting the Unit 2 RE HVAC per procedure S76.1.B.

A contributing factor of the event was task interruption in that the CO became involved with the additional steps in S76.1.B which directed use of procedure S43.0.A to reset the Recirculation Pump Motor Generator (MG) Set (E1IS:AD) scoop tube brake for the '2A' MG Set. Manipulation of the scoop tube brake for the '2A' MG Set had temporarily been added to procedure S76.1.B due to recent '2A' Recirculation Pump operation anomalies while starting the Unit 2 RE HVAC. While resetting the scoop tube, the '2A' Recirculation Pump developed some oscillations and the CO directed his attention to the pump problem. Following the interruption, the CO failed to return to Procedure S76.8.B to complete step 8.3.8.

An additional contributing factor is a design deficiency in that alarm window B-2 on MCR alarm panel 219, which reads, "A/B Reac Encl/Refuel Flr Iso Sys Armed/Bypassed," is always in the alarmed state when the Refuel Floor HVAC Isolation Valve Reset Switches are in the "Reset" position (which is normally the case unless the Refuel Floor Secondary Containment integrity is established). As a result, the MCR operators were not alerted to any of the other eight conditions that could cause the alarm to annunciate. Had this alarm not been in the alarm state due to the Refuel Floor Reset switches, it would have alarmed to alert the CO that the RE Isolation Valve Reset Switches were in the "Reset" position.

Corrective Actions:

The CO involved in this event was counseled on the importance of following procedures and the practice of self checking one's work to ensure proper performance.

Procedure S76.8.A will be revised to have cautions included regarding the consequences of placing the 'A' and 'B' RE Isolation Valve Reset switches in the "Reset" position. The revision is expected to be completed by September 30, 1992. General Plant (GP) procedure GP-9 (III), "Refuel Area Secondary Containment Integrity (Zone III)," will be revised to include steps to install and remove a temporary change to the plant that will enable the alarm, "A/B Reac Encl/Refuel Floor Isolation System Armed/Bypassed," to function when Refuel

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

Floor Secondary Containment is not required and the Refuel Floor HVAC Isolation valve Reset switches are in the "Reset" position. This revision is expected to be implemented by August 31, 1992. The temporary change to the plant will be installed to provide alarm annunciation capability depending on current plant condition. This action is expected to be completed by August 31, 1992. More permanent corrective actions are being pursued through the plant modification process.

Corrective actions to address a previous task interruption event (reference LER 2-92-005), including issuance of a Shift Training Bulletin and a revision to the Operations Manual, were being implemented at the time of this event. These corrective actions are also applicable to this event.

Previous Similar Occurrences:

LER 2-92-005 also reported an event that was caused in part by task interruption involving Operations personnel. This event occurred on June 5, 1992 and the corrective actions were in the process of being implemented at the time of the occurrence of the event reported in this LER. Therefore, the corrective actions would not be expected to have prevented this new event. There have been no previous events involving incorrect positioning of the Reset Switches discussed in this report.