

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Oyster Creek, Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 2 1 1 9	PAGE (3) 1 OF 0 3
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TITLE (4)
MAIN STEAM ISOLATION VALVE CLOSURE CAUSED BY OPERATOR ERROR

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)
01	06	87	87	002	00	02	05	87				0 5 0 0 0
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OPERATING MODE (9) S	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)									
POWER LEVEL (10) 01012	20.402(b)	20.406(e)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)					
	20.406(a)(1)(i)	50.38(a)(1)		50.73(a)(2)(v)	73.71(e)					
	20.406(a)(1)(ii)	50.38(a)(2)		50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)					
	20.406(a)(1)(iii)	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)						
	20.406(a)(1)(iv)	50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)						
20.406(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(ix)							

LICENSEE CONTACT FOR THIS LER (12)	
NAME George K. Mortensen, Shift Technical Advisor	TELEPHONE NUMBER 6 1 0 1 9 9 1 7 1 1 - 2 1 1 8 1 6

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
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO					

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

On January 6, 1987 at 0410 hours, an inadvertant automatic main steam line isolation occurred during startup activities. Before the event, the reactor was critical in the STARTUP mode. A control room operator had increased power above the point of adding heat and had established a heat up rate. One Intermediate Range Monitor (IRM) (EIIS-IB) was reading high and had been placed into range 9; all other IRM channels were in Range 8. The next in-sequence control rod was adjacent to the detector for the high-reading IRM. When that control rod was withdrawn to maintain the heat up rate, the indicated power on that IRM increased rapidly. The control room operator responded to the increased power level by ranging that IRM into range 10. The Reactor Protection System (EIIS-JC) responded by shutting the MSIVs (EIIS-ISV) and all other valves required to shut on a reactor isolation since reactor pressure was less than or equal to 825 psig. The cause of the reactor isolation was identified and corrected, the isolation signal was reset, the MSIVs were reopened, and the normal startup sequence was resumed. The cause of the event was determined to be operator error in not realizing that this IRM was in range 9 with reactor pressure less than or equal to 825 psig and then ranging to range 10. The safety significance of this event is considered minimal since the isolation condensers were available, if necessary, for controlling reactor pressure. Corrective action to be taken in the future includes operator training on this event. In addition, the degree of physical resistance needed to advance the range switch will be re-evaluated. Similar events were reported in LERs 85-022 and 85-025.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		

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

DATE OF OCCURRENCE

The event occurred on January 6, 1987 at approximately 0410 hours.

IDENTIFICATION OF OCCURRENCE

An inadvertent automatic main steam line isolation was initiated during startup activities. This event is considered reportable under 10 CFR 50.73.(a)(2)(iv).

CONDITIONS PRIOR TO OCCURRENCE

The reactor was critical in the STARTUP mode, with reactor coolant temperature at 260°F and pressure approximately 22 psig. A reactor heat-up was in progress.

DESCRIPTION OF OCCURRENCE

On January 6, 1987 at 0410 hours, an inadvertent automatic main steam line isolation occurred during startup activities. Before the event, the reactor was critical in the STARTUP mode. A control room operator had increased power above the point of adding heat and had established a heat up rate. One Intermediate Range Monitor (IRM) (EIIS-IB) was reading high and had been placed into range 9. All other IRM channels were in Range 8. The next in-sequence control rod was adjacent to the detector for the high-reading IRM. When that control rod was withdrawn to maintain the heat up rate, the indicated power on that IRM increased rapidly. The control room operator responded to the increased power level by ranging that IRM into range 10. The Reactor Protection System (EIIS-JC) responded by shutting the MSIVs (EIIS-ISV) and all other valves required to shut on a reactor isolation since reactor pressure was less than or equal to 825 psig. The cause of the reactor isolation was identified and corrected, the isolation signal was reset, the MSIVs were reopened, and the normal startup sequence was resumed. A recent modification on the IRM range switches had been installed to add additional physical resistance when placing the range switch in range 10. It appears that this modification did not adequately prevent inadvertent entry into range 10, and will be re-evaluated.

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

APPARENT CAUSE OF OCCURRENCE

The root cause of this event has been determined to be operator error. The operator was aware that reactor pressure was less than 825 psig and that placing the IRM range switch in range 10 would cause an MSIV closure. However, he failed to maintain an awareness of the status of the nuclear instrumentation, in that he thought the IRM was in range 8, not range 9, consequently, when the IRM was ranged up, range 10 was entered.

ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

The low pressure/IRM range 10 MSIV isolation at 825 psig provides protection against exceeding the fuel cladding safety limit. When the MSIVs close in the STARTUP or RUN modes, a reactor scram occurs (bypassed when less than or equal to 600 psig) to prevent high power operation at low reactor pressure. When the IRM range switch entered range 10 with reactor pressure less than or equal to 825 psig, an MSIV isolation properly initiated. A reactor scram did not occur, however, because reactor pressure was less than or equal to 600 psig.

CORRECTIVE ACTION

Immediate corrective actions were taken to ensure the plant was in a safe condition, investigate the cause of the MSIV closure, and reopen the MSIVs.

Corrective actions that will be taken to prevent a similar event in the future are:

1. This event will be placed on a required reading list for all operators and will be discussed in operator training.
2. Due to a similar event, a modification was installed on the IRM range switch which adds additional physical resistance when advancing the range switch into range 10. Due to the fact that inadvertant entry into range 10 was not avoided subsequent to the modification, the degree of physical resistance needed to advance the range switch will be re-evaluated.

SIMILAR EVENTS

- LER 85-022 - Reactor scram due to main generator trip
- LER 85-025 - Main Steam Isolation Valve Closure caused by Operator Error

(0278A)



GPU Nuclear Corporation
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609 971-4000
Writer's Direct Dial Number:

February 5, 1987

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

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Licensee Event Report

This letter forwards one (1) copy of Licensee Event Report (LER)
No. 87-002.

Very truly yours,

Peter B. Fiedler
Vice President and Director
Oyster Creek

PBF:BD:dam(0278A)
Enclosures

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