



GPU Nuclear Corporation
Post Office Box 388
Route 9 South
Forked River, New Jersey 08731-0388
609 971-4000
Writer's Direct Dial Number:

August 25, 1989

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. 89-018.

Very truly yours,

E.E. Fitzpatrick 8/25/89
E.E. Fitzpatrick
Vice President & Director
Oyster Creek

EEF/MH:jc
Enclosure

cc: Mr. William T. Russell
Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Alexander W. Dromerick
U.S. Nuclear Regulatory Commission
Washington, DC 20555

NRC Resident Inspector
Oyster Creek Nuclear Generating Station

8909050349 890825
PDR ADDCK 05000219
S PDC

IE22
11

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Oyster Creek DOCKET NUMBER (2) 0 5 0 0 0 2 1 1 9 PAGE (3) 1 OF 0 4

TITLE (4)
ELECTROMATIC RELIEF VALVE HIGH PRESSURE FUNCTION INOPERABLE DUE TO LOOSE WIRE

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)
07	29	89	89	018	000	08	25	89			0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9) 0 1 7 1 2 THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(a)	<input type="checkbox"/> 80.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 80.38(a)(1)	<input type="checkbox"/> 80.73(a)(2)(v)	<input type="checkbox"/> 73.71(a)
<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 80.38(a)(2)	<input type="checkbox"/> 80.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 386A)
<input type="checkbox"/> 20.406(a)(1)(iii)	<input checked="" type="checkbox"/> 80.73(a)(2)(i)	<input type="checkbox"/> 80.73(a)(2)(vii)(A)	
<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 80.73(a)(2)(ii)	<input type="checkbox"/> 80.73(a)(2)(vii)(B)	
<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 80.73(a)(2)(iii)	<input type="checkbox"/> 80.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (13)

NAME	TELEPHONE NUMBER
<u>M. Godknecht, Plant Engineering</u>	AREA CODE <u>6 1 0 9</u> NUMBER <u>9 1 7 1 1 - 4 1 1 8 1 9</u>

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS

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 July 29, 1989 at approximately 2215 hours, during a routine surveillance, a loose wire was found in the high pressure actuation circuit for the "D" electromatic relief valve (EMRV). The senior technician performing the surveillance verified that the wire was not properly landed, determined the proper connection point for the wire using plant drawings, and relanded the wire. Although the wire was making some contact, adequate continuity for valve operation could not be verified. It was conservatively determined that the "D" EMRV could not have been relied upon to open during a high pressure condition and that the valve had been inoperable due to the loose wire. This event was possibly caused the last time the surveillance was performed on June 28, 1989 since the "D" EMRV actuated normally on high pressure on June 25, 1989 following a reactor scram. The safety significance of this event is considered to be minimal because the "D" EMRV actuated normally on June 25 and no work other than the surveillance on June 28 was performed on the EMRV's between June 25 and the date of this event. Additionally, only the high pressure relief function for the "D" EMRV was inhibited. The ADS and manual functions for the valve were unaffected and the valve would have operated as designed if either of these functions had been required. The other four EMRV's were fully operable and would have opened automatically on a high pressure condition. The feasibility of revising procedures such that continuity is verified through all portions of the EMRV circuit is being evaluated, and a visual inspection and tightness check will be performed to check the connections in each of the 5 EMRV controllers the next time the EMRV surveillance is performed.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Oyster Creek	DOCKET NUMBER (2) 0 5 0 0 0 2 1 9	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 9	0 1 8	0 0 0 2	0 2	0 4

TEXT (If more space is required, use additional NRC Form 306A's) (17)

Date of Discovery

The condition described within this report was discovered on July 29, 1989, at approximately 2215 hours.

Identification of Occurrence

During a routine surveillance, a loose wire was found in the high pressure actuation circuit for the "D" electromatic relief valve (EMRV). Examination revealed that the "D" EMRV could not have been relied upon to open during a high pressure condition and a conservative determination was made that the valve had been inoperable due to the loose wire. This event is considered reportable as defined by 10CRF50.73(a)(2)(i)(B).

Conditions Prior to Discovery

The reactor was at 72% power, with a generator load of approximately 424 megawatts electric.

Description of Occurrence

While attaching instrumentation for the performance of a monthly surveillance for the EMRV's, an Instrument & Control (I&C) technician noted that a wire in the pressure switch logic for actuating the "D" EMRV during high pressure conditions was loose. The senior technician performing the surveillance verified that the wire was not properly landed, verified the proper connection point for the wire using plant drawings, then relanded the wire. Although some contact between the terminal was being made, adequate continuity for valve operation could not be verified. The surveillance was completed with no other discrepancies noted.

Apparent Cause of Occurrence

The "D" EMRV actuated normally on high pressure on June 25, 1989, therefore it is known that it was operable as of that date. This wire is not normally loosened or lifted for any surveillance or operating procedure; however, it is possible that the wire was loosened inadvertently when the EMRV surveillance was last performed on June 28, 1989. No other activities were performed in or around the EMRV controllers between June 25 and the time of this discovery.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Oyster Creek	DOCKET NUMBER (2) 0 5 0 0 0 2 1 9	LER NUMBER (3)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 9	0 1 8	0 0	0 3	OF 0 4

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

Analysis of Discovery and Safety Significance

The EMRV/Automatic Depressurization System (ADS) provides several functions during plant operations. The ADS system opens all five EMRV's during a small break loss of coolant accident (LOCA) with a loss of feedwater. This assures that pressure in the reactor will decrease below the shutoff head of the core spray pumps, allowing these pumps to inject to the reactor pressure vessel (RPV) and provide adequate core cooling. The high pressure relief function of the EMRV's is designed to act in conjunction with the Isolation Condenser System and the Reactor Protection System (RPS) settings to assure never reaching the reactor coolant system pressure safety limit as well as assuring the system pressure does not exceed the range of fuel cladding integrity safety limit. The setpoints for the EMRV's are also selected to minimize the probability of opening the reactor safety valves during a high pressure transient after a scram.

The safety significance of this event is considered to be minimal for the following reasons:

- The "D" EMRV actuated normally on high pressure on June 25 1989 following a reactor scram. The only activity performed between June 25 and the date of this discovery was the surveillance performed on June 28, 1989.
- During this event, only the high pressure relief function for the "D" EMRV was inhibited. The ADS and manual functions for this valve were unaffected and valve would have operated as designed if either of these functions had been required.
- The other four EMRV's were fully operable and would have automatically opened on a high pressure condition.
- During a failure-to-scram situation resulting in a high pressure condition, the reactor safety valves are sized such that the high pressure safety limit will not be exceeded even if all five EMRV's and both isolation condensers failed to operate.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Oyster Creek	DOCKET NUMBER (2) 0 5 0 0 0 2 1 9 8 9	LER NUMBER (8)			PAGE (3) 0 4 OF 0 4
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		8 9	-- 0 1 8	-- 0 0	

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

Corrective Action

Short Term

The senior technician performing the surveillance verified the proper connection for the loose wire using plant drawings, then relanded the wire.

Long Term

The feasibility of revising the surveillance procedures for the EMRV's such that continuity is verified through all portions of the circuit is being evaluated by the Plant Engineering group. During the next surveillance, a visual inspection and tightness check will be performed to check all connections in each of the 5 EMRV controllers.

This LER will be made required reading for all I&C personnel to emphasize the importance of checking for tight connections.

Similar Events

LER-87-13 "SGTS Initiation Caused by Improperly Installed Wire Connector Due to Personnel Error"